RUSS OLSON VOLUME 30

VALLEY CITY STREET & INTERURBAN RY.

CAPITOL CAR LINE

Description

A brief history of streetcar companies based in North Dakota

Sub-divisions Within This Volume

- The Valley City Street & Interurban Railway (Valley City, ND)
- The Capitol Car Line a.k.a. State of North Dakota Electric Railway (Bismarck, ND)
- Devil’s Lake & Chautauqua Transfer Company a.k.a. Brazil, Devil’s Lake & Minneapolis Electric Railway, a.k.a. Chautauqua Air Line; and a brief reference to the Northwestern Traction Co. of Brazil, ND

VALLEY CITY STREET & INTERURBAN RAILWAY

VALLEY CITY STREET & INTERURBAN RAILWAY

Valley City, North Dakota

The appended article from the April 1981 issue of "The Soo", publication of the Soo Line Historical and Technical Society, provides a more detailed history of this company than what I provided in "The Electric Railways of Minnesota". Rather than retype that material here I refer the reader to the appended article. Research performed locally relating to the construction and opening of the railway have been provided by Ken Soroos. Additional information and corrections are presented in the comments following.

The initial capitalization was $50,000 and the original investment in road and equipment amounted to $58,000. The railway opened for service December 18, 1905.

Track mileage figures came from the 1907 U. S. Census. First main track 1.75 miles plus sidings 0.25 miles = total track 2.00 miles, all 60 lb./yd. T rail. Overhead construction was 1.00 miles side-bracket and 0.75 miles span wire. Equipment owned comprised one passenger-baggage motor car and two open passenger trailers. The motor car had four motors, hand brakes, electric lights and stove heat.

With regard to passenger-baggage motor car #1, it was NOT Chicago & Milwaukee Electric Railway number 22 acquired in December 1905. Materials and photographs from other publications are appended. The photograph of number 22 as re-equipped in 1902 shows it with **Curtis** trucks, **U.S. #6** trolley bases, and **air brakes**, none of which appear on VCS&I Ry. #1. I have researched various publications pertaining to Michigan electric railways and cannot find any photographs or roster data indicating Pullman-built cars of this style and date. An examination of CERA Bulletin #112 "The Milwaukee Electric Railway and Light Company" indicates that the Milwaukee, Racine & Kenosha Electric Railway passenger-baggage motor car #25 is identical to VCS&I Ry. #1. The roster data pertaining to this car is appended. The 1900 roster shows no disposition for #25 but the 1905 and later roster (not photocopied)does not include #25, indicating that it was disposed of before the date of the 1905 roster. I suspect that MR&KE Ry #25 became VCS&I Ry. #1.

With regard to the two open passenger trailers, the September 1905 newspaper article reported that the company expected to purchase one or two trailers. In CERA Bulletin #106 it is stated that the Chicago & Milwaukee Electric Railway had six open trailers built by St.Louis Car Company in June 1898, numbers 40-45; two were sold December 1905 to VCS&I Ry. and three in 1906 to Oklahoma City. This information may or may not be correct.

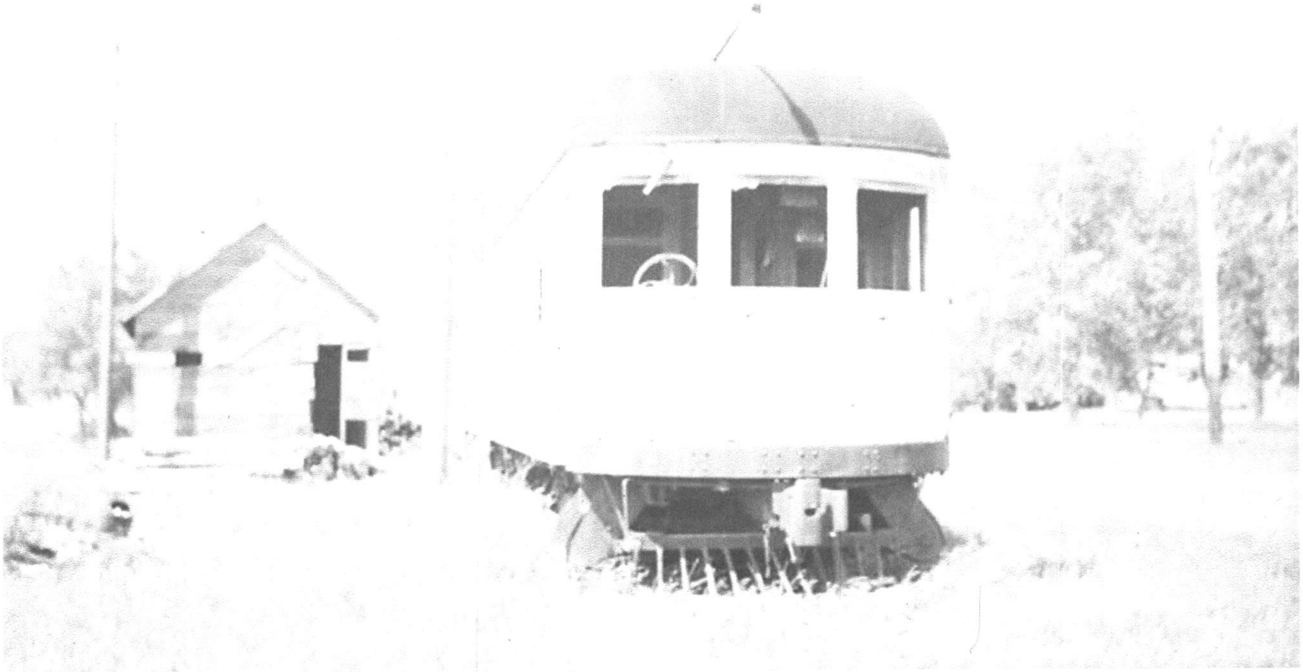
The 1905 building in Valley City was 50' x 100', brick construction, two-stories and basement. It housed the depot and repair shop, with the powerhouse located in the basement. The machinery consisted of one 125 h.p. boiler, one 100 h.p. engine, and one 80 KW generator.

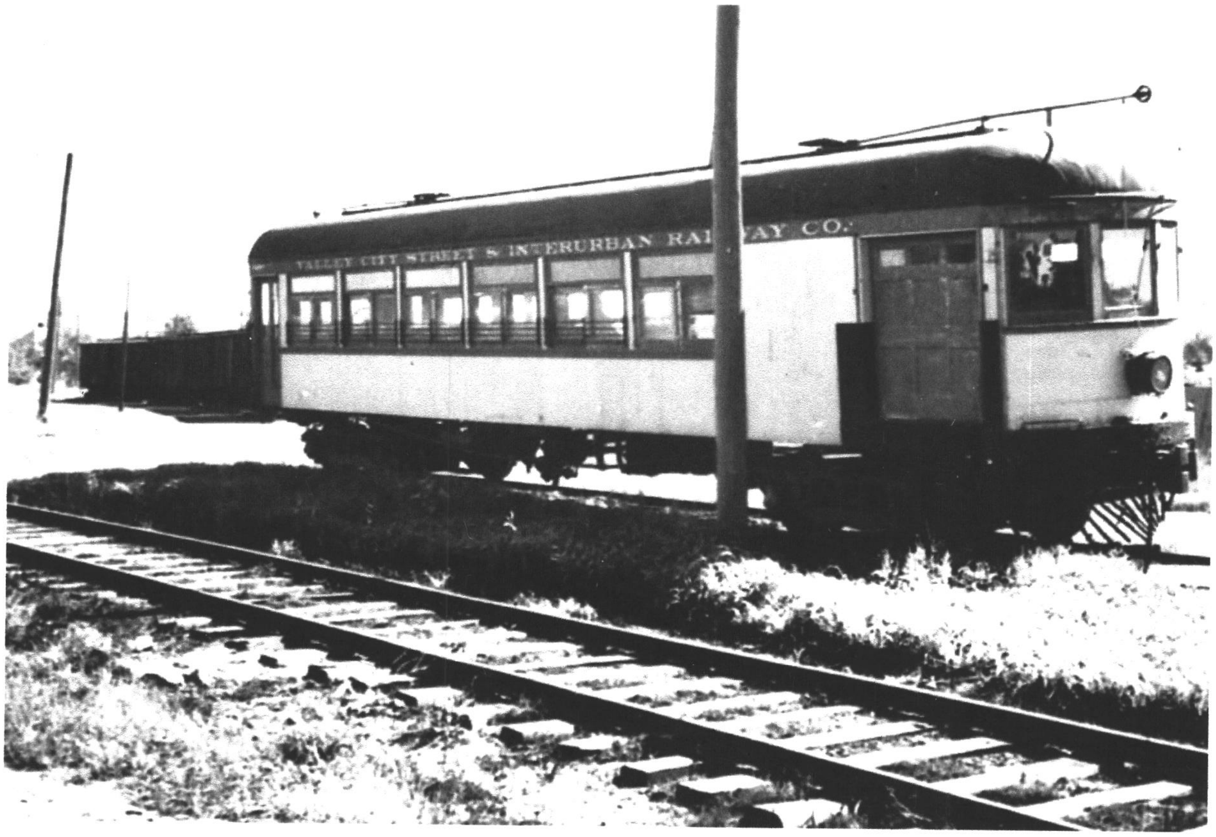
After the death of O. A. Beaman, his wife sold the railway in 1909 to C. J. Lee and James Grady.

Passenger-baggage motor car #2 was purchased in 1915 from McGuire-Cummings Manufacturing Co. at a reported cost of $5,000. July 1918 and November 1923 electric railways report the VCS&I Ry. as owning 1.50 miles of track (100 ft. in paved street) and three motor cars.

The locomotive purchased in December 1947 was Minneapolis, Anoka & Cuyuna Range Railroad #105.

The Soo Line Railroad purchased the railway in 1953, supposedly at a cost of $12,000.




VALLEY CITY STREET & INTERURBAN RAI AY CO.

APRIL 1981 $3.00

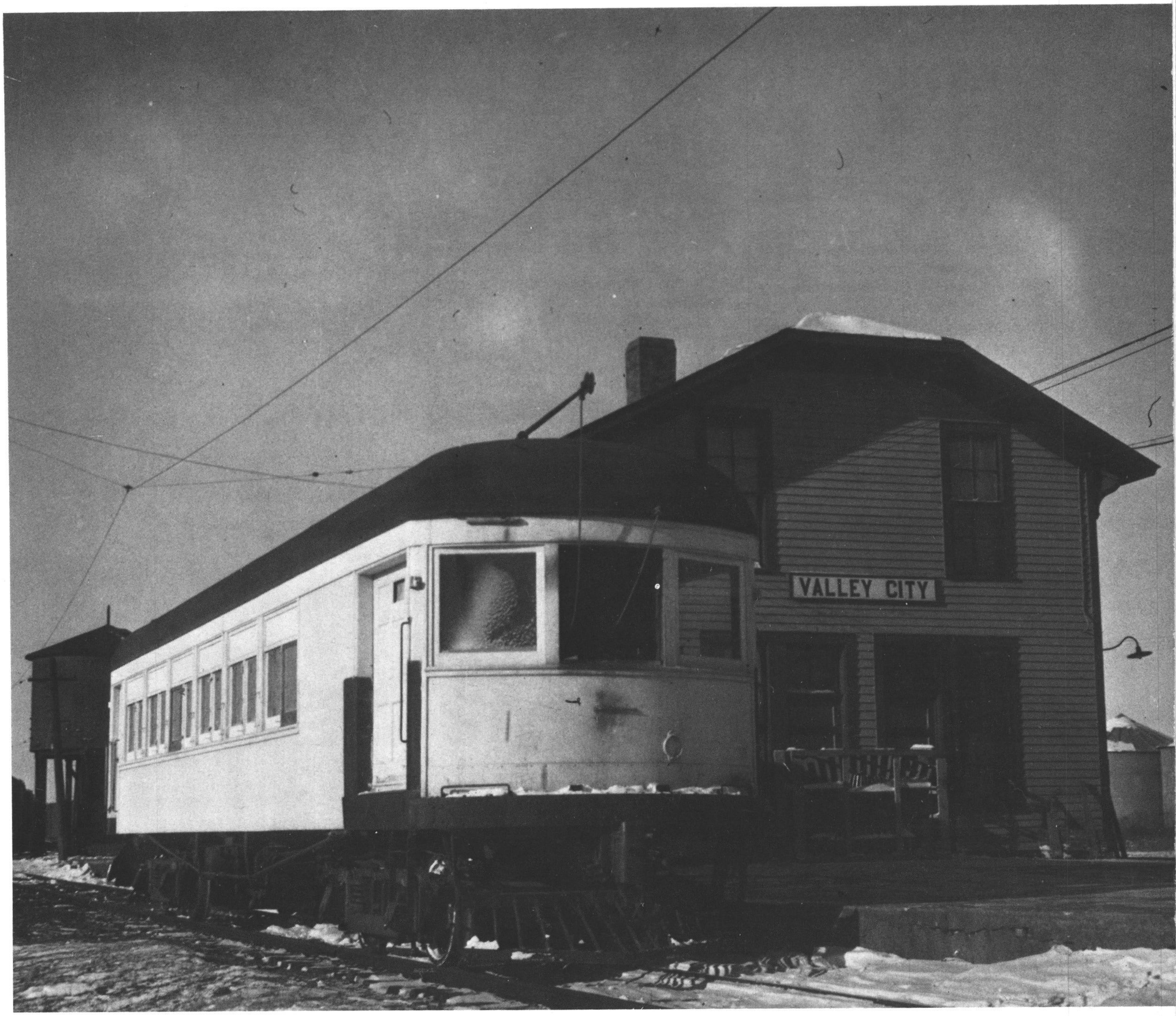
the SOO

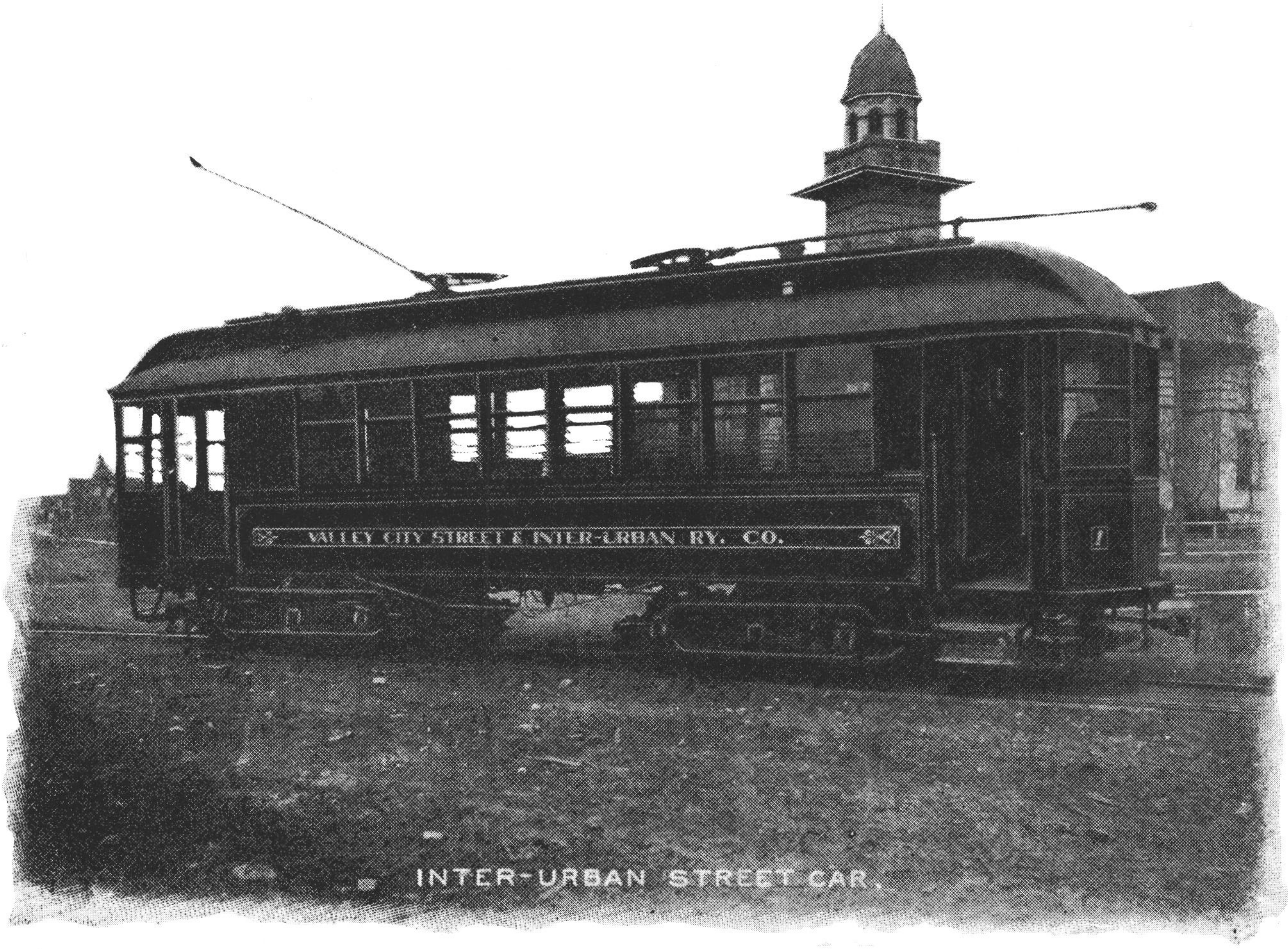
THE SOO LINE HISTORICAL AND TECHNICAL SOCIETY

PLANS OF ELECTRIC CARS

Valley City Street and Interurban Railway Company

RAILROADING IN WAUPACA





Valley City Street and Interurban Railway Company car No. 1 was purchased used in 1906 and served during the first ten years of the line's operation. The car was built by the Pullman Company about 1900, but the previous owner is unknown.
Barnes County Historical Society Collection

Valley City Street and Interurban Railway Company

by KEN SOROOS

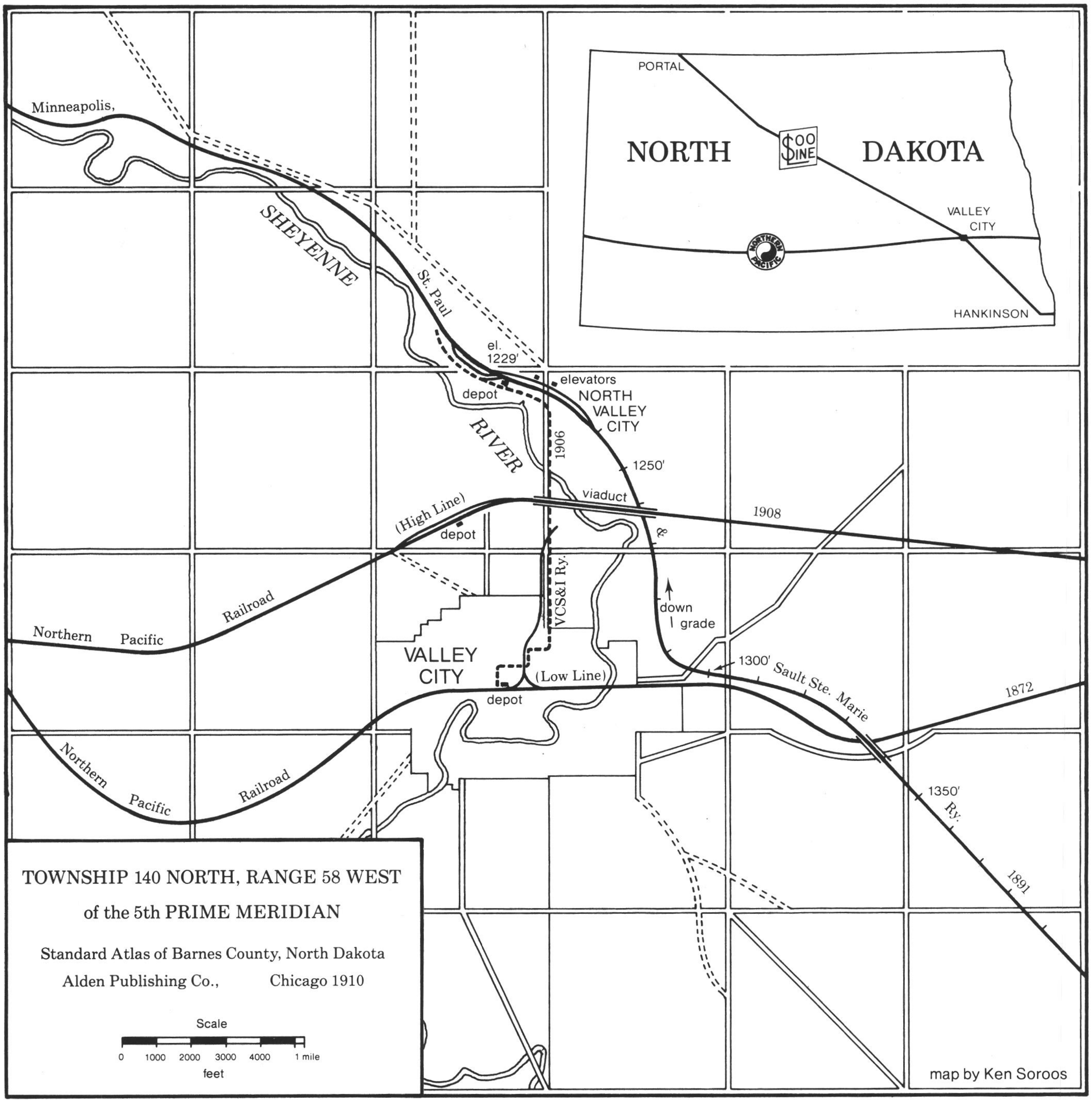
Valley City is located in eastern North Dakota where the Soo Line main line to western Canada crosses the former Northern Pacific transcontinental route. As an 81 mile branch line cutting diagonally northwest across the state, the Soo Line reached Valley City in 1891. Two years later this "branch line" reached Canada at Portal, North Dakota. There it connected with a Canadian Pacific line from Moose Jaw, Saskatchewan. Thus a new transcontinental route was formed between Minneapolis and the Pacific coast.

Valley City is a picturesque town of 7,000 nestled in a broad valley of the Sheyenne River. To drop its line down into this valley, the Soo Line cut a grade into the bluffs on the east side of the river. The resulting long, curving climb severely reduces the tonnage which can be handled by eastbound trains along this line. Heavy freights must sometimes "double the hill" and on rare occasions helpers are dispatched from Enderlin to Rogers to assist these freights out of the valley.

Since Valley City is located primarily west and south of the river, it was impossible for the line to run directly through the town. Instead, the depot was built at North Valley City, where the line finally reached the valley floor about one mile north of Valley City.

The depot, which was constructed in 1891, is one of the first examples of the Soo's standard second-class depot. First introduced along the line through Valley City, this style depot became common throughout the entire Soo system. By 1920 more than 200 had been constructed in North Dakota alone. An unusual feature of the Valley City depot is the "clipped" gables on the roof ends. Originally the building was constructed with lap siding, but in the early 1950's this was replaced by "Insul-brick" asphalt siding.

Because of the location of the Soo's facilities well north of Valley City, there was originally no means of interchange between the Soo Line and the Northern Pacific. Transfer of passengers and baggage was handled by a stage coach or "bus." The transfer was not without hazards. This stage coach, for example, was held up in November of 1901. Six masked men relieved the 17 passengers of $150 and a gold watch.


Minneapolis,
St. Paul
& Sault Ste. Marie Ry.
SHEYENNE
RIVER
NORTH DAKOTA
PORTAL
VALLEY CITY
HANKINSON
el. 1229'
elevators
NORTH VALLEY CITY
depot
1906
1250'
viaduct
1908
(High Line)
depot
VCS&I Ry.
down grade
Northern Pacific Railroad
VALLEY CITY
(Low Line)
depot
1300'
1872
1350'
1891
Northern Pacific Railroad
Scale
0 1000 2000 3000 4000 1 mile
feet
map by Ken Soroos

TOWNSHIP 140 NORTH, RANGE 58 WEST
of the 5th PRIME MERIDIAN

Standard Atlas of Barnes County, North Dakota
Alden Publishing Co., Chicago 1910

BEGINNING OF OPERATIONS BY THE VALLEY CITY STREET AND INTERURBAN RAILWAY COMPANY

In June, 1905, the Valley City Street and Interurban Railway Company was incorporated by O. A. Beeman to provide for the transfer of passengers, freight, mail and express between the Northern Pacific depot downtown and the Soo Line depot at North Valley City. Acting as the company's first president, Beeman obtained franchises to operate on Valley City's streets and the county roadway between the two depots. A main line of 1.75 miles and sidings of 0.25 miles were constructed with 60 pound rail. The power house and repair shop were located at what is today Central Avenue and 4th Street N.E. in downtown Valley City. Power was supplied by a steam engine which turned an 80 kilowatt generator.

Beeman originally considered purchasing a new electric car for the line and wrote to the J. A. Hanna Company the same month as the company was incorporated. He received the following reply:

Niles Cars *Peckham Trucks*
J. A. HANNA COMPANY
ELECTRIC RAILWAY CARS, TRUCKS
and Accessories
312 Electric Building
Cleveland, O.

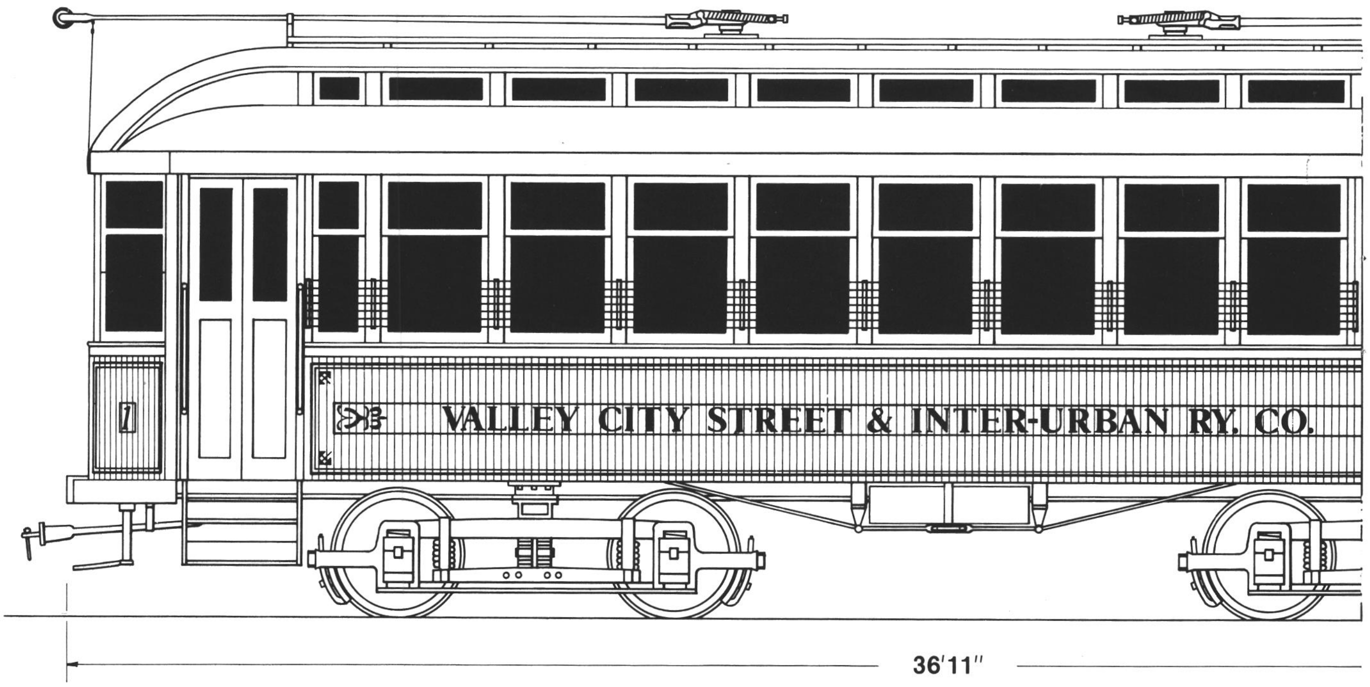
Cleveland, Ohio, June 15th, 1905.

Mr. O. A. Beeman, President
Valley City & Interurban Railway Co.
Valley City, N. D.

Dear Sir:-

We have your esteemed favor of the 12th, and note carefully your remarks in same.

In reply would say that we have at our Factory some 12-window, 45' interurban cars, practically



VALLEY CITY STREET AND INTERURBAN RY. CO.

CAR NO. 1

Combination Baggage-Passenger Interurban Car
built by Pullman Company (c. 1900)
in service 1906-1915

completed, which could be finished and shipped in two to three weeks, which we believe are exactly what you require. We are pleased to enclose herewith small blue print #184, showing seating plan and side elevation, photograph and detailed specification showing these cars exactly as they were constructed. You will note this car seats 32 persons, and we can readily alter the smoking compartment into a baggage room, which would be about 11½ ft. long, which we believe is about what you require.

You will note from the specifications and blue print that these cars are of a very neat and handsome design and of exceptionally strong construction throughout. The photograph enclosed was taken of a type of car furnished by the Niles Co. to the Rockford,Beloit & Janesville R.R., Beloit, Wis., and is very similar in every respect to the cars which we are offering you, and we would be glad to have you take up with the Beloit people the matter of Niles cars.

Our price for these cars, including the necessary alterations for baggage compartment, and otherwise as specified, is $2,600.00 each f.o.b. cars Niles, Ohio.

Relative to suitable trucks for these cars, would say that we have three pairs of our M.C.B. type No. 36-B, per descriptive circular enclosed herewith, in stock, which we could ship immediately, and which we guarantee to be absolutely suitable for these cars. These trucks weigh about 8,500 lbs, each truck, or 17,000 lbs, per pair, are unusually strong and easy riding. We now have orders on our books for over 600 trucks of this same type.

Our price for these trucks, f.o.b. cars our factory, is $700.00 per pair of two trucks, or for each car equipment.

You can be absolutely certain of one or more equipments as specified in enclosed data, complete except the motor equipments, in ample time to enable you to operate same by Aug. 1st next, and we guarantee same exactly as represented in every respect, and would be glad to have you visit our Factory at Niles, Ohio and thoroughly inspect every detail.

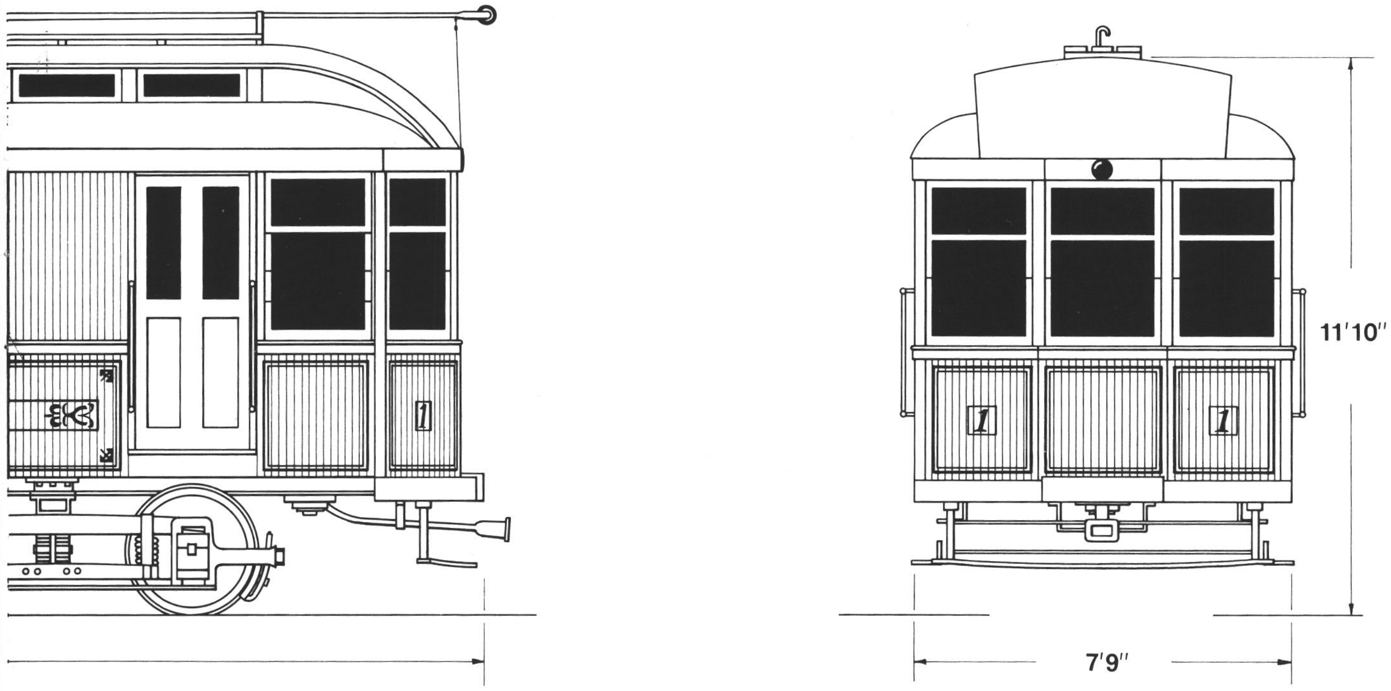
We shall be glad to give you any further information at any time.

Inasmuch as cars of this type are in great demand just now for quick delivery, and we are having many inquiries, the above quotations are, of course, made subject to prior sale.

Hoping to have the pleasure of serving you, we remain,

Very truly yours,
J. A. Hanna Co.,
By *F. A. Richards*

The Valley City Street and Interurban Railway Company decided not to purchase a new interurban car. According to Russell L. Olson's *Electric Railways of Minnesota,* car No. 1 was supposedly acquired used from an electric railway in Michigan. This passenger-baggage combination car was built by the Pullman Company and is almost identical to cars No. 21-22 built for the Chicago & Milwaukee Electric Railway Company in 1900. The cars were 36′ 11″ in length and seated 28 persons. Retired after only a few years of service, the actual disposition of these cars is unknown. According to James J. Buckley, one of these cars may have become car No. 1 on the VCS&I Ry. Supporting this theory



0 Scale: ¼" = 1 foot

drawn for the SLHTS by

KEN SOROOS

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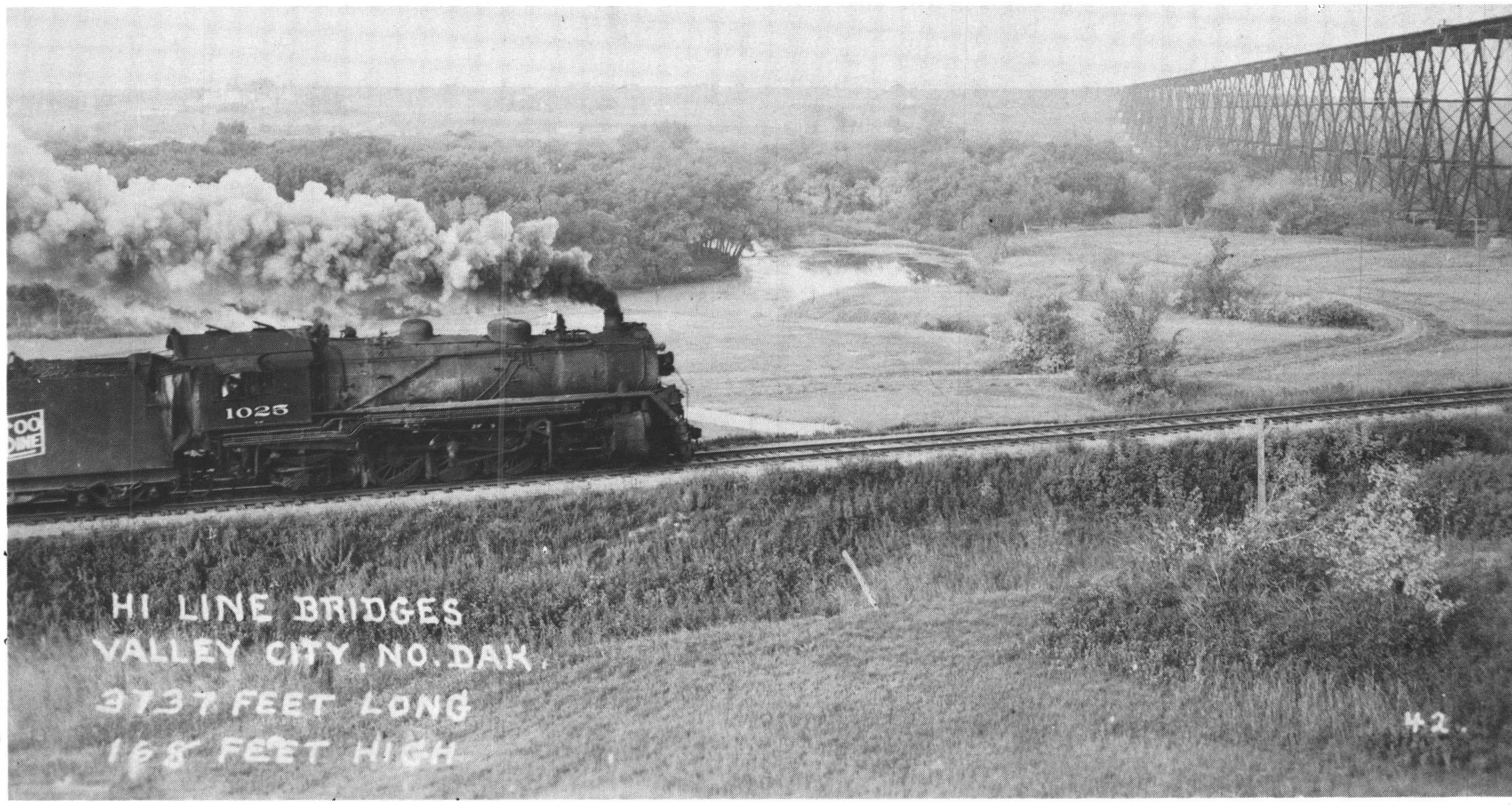
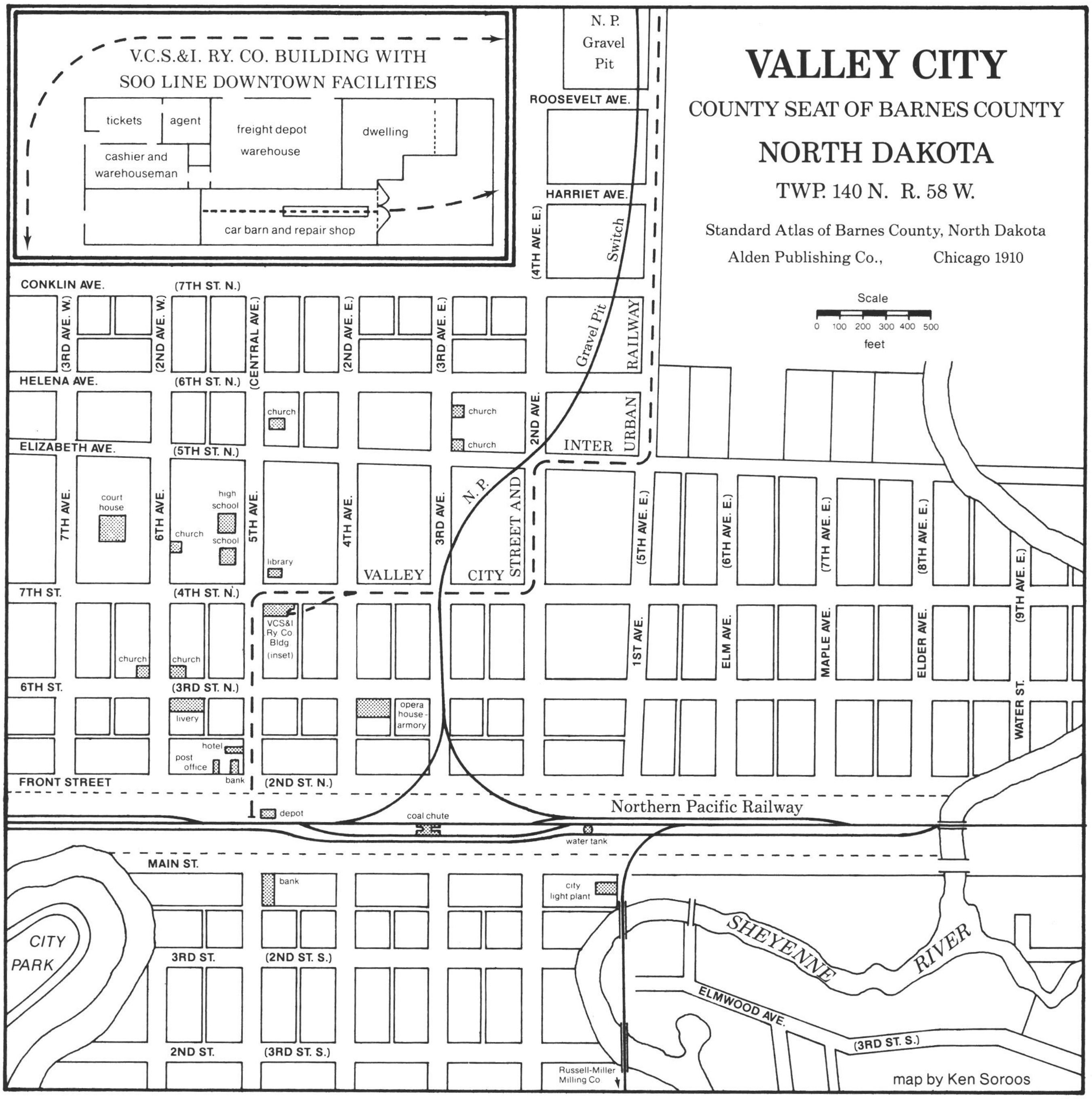

1025
SOO LINE
HI LINE BRIDGES
VALLEY CITY, NO. DAK.
3737 FEET LONG
168 FEET HIGH
42.

Soo Line 2-8-2 1025 drops downgrade with its freight train east of the Sheyenne River. About one mile after passing under the east end of the Northern Pacific's "hi-line bridge," it will reach the valley floor at North Valley City.
Don Mahoney collection



VALLEY CITY
COUNTY SEAT OF BARNES COUNTY
NORTH DAKOTA
TWP. 140 N. R. 58 W.
Standard Atlas of Barnes County, North Dakota
Alden Publishing Co., Chicago 1910

V.C.S.&I. RY. CO. BUILDING WITH SOO LINE DOWNTOWN FACILITIES

map by Ken Soroos

tickets
agent
freight depot
warehouse
dwelling
cashier and
warehouseman
car barn and repair shop
N. P. Gravel Pit
ROOSEVELT AVE.
HARRIET AVE.
Switch
Gravel Pit
RAILWAY
URBAN
INTER
Scale
0 100 200 300 400 500
feet
CONKLIN AVE.
(7TH ST. N.)
(3RD AVE. W.)
(2ND AVE. W.)
(CENTRAL AVE.)
(2ND AVE. E.)
(3RD AVE. E.)
(4TH AVE. E.)
HELENA AVE.
(6TH ST. N.)
church
church
church
2ND AVE.
ELIZABETH AVE.
(5TH ST. N.)
7TH AVE.
court house
6TH AVE.
high school
church
school
5TH AVE.
library
4TH AVE.
VALLEY
3RD AVE.
N. P.
CITY
STREET AND
(5TH AVE. E.)
(6TH AVE. E.)
(7TH AVE. E.)
(8TH AVE. E.)
(9TH AVE. E.)
7TH ST.
(4TH ST. N.)
VCS&I Ry Co Bldg. (inset)
church
church
1ST AVE.
ELM AVE.
MAPLE AVE.
ELDER AVE.
WATER ST.
6TH ST.
(3RD ST. N.)
livery
opera house - armory
hotel
post office
bank
FRONT STREET
(2ND ST. N.)
depot
coal chute
Northern Pacific Railway
water tank
MAIN ST.
bank
city light plant
CITY PARK
3RD ST.
(2ND ST. S.)
SHEYENNE
RIVER
ELMWOOD AVE.
(3RD ST. S.)
2ND ST.
(3RD ST. S.)
Russell-Miller Milling Co

is the fact that when operations started on the Valley City line, two open trailers were also owned. At that time the North Shore Line also had a few open trailers for sale. It is very possible that two of these were acquired along with the combination car from the C&ME Ry.

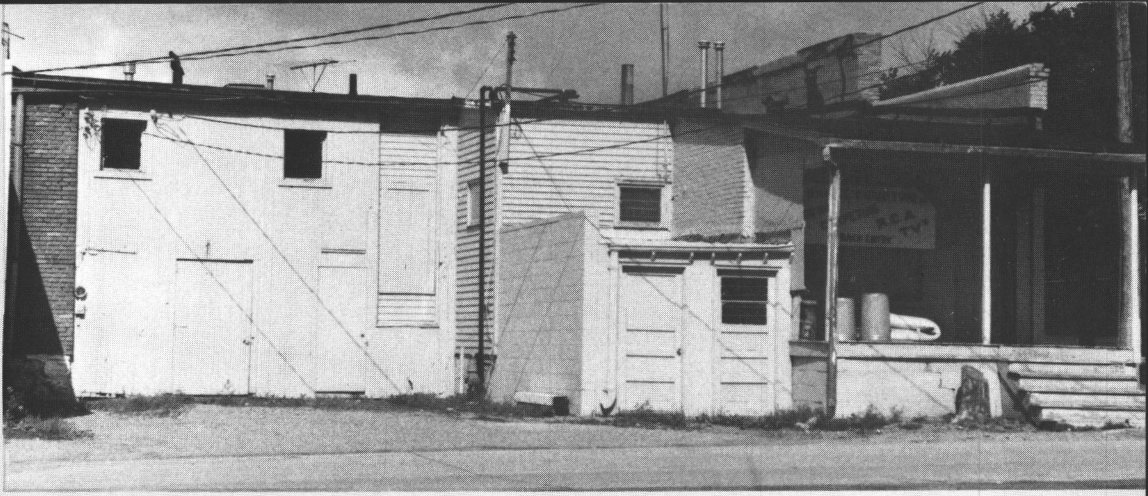
John Gjevre, in his *Sage of the Soo*, states that another smaller passenger car was also used during the first ten years of VCS&I Ry. operation. Since a new car was purchased in 1915, listings in 1918 and 1924 electric railway directories showing the VCS& I Ry. Co. as owning the three motor cars support this statement. No further information regarding this car is available.

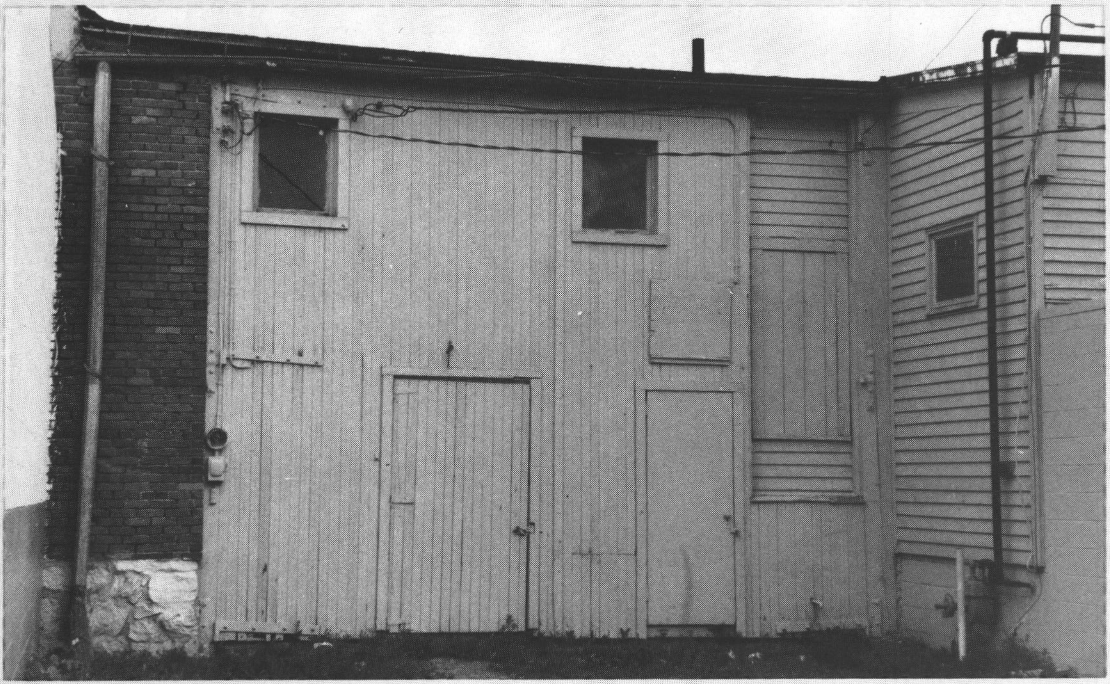
On December 18, 1905 operations began. During its first few years, the route of the interurban passed under the construction site of the Northern Pacific's huge "hi-line" viaduct just north of Valley City. The trestle is three quarters of a mile long and reaches a maximum height of over 160 feet above the Sheyenne River. It is the prominent structure in the Valley City area and was built by the Northern Pacific as an alternative to the expense of pulling heavy trains out of the valley on its "low line" through town. All Burlington Northern through freights, as well as Amtrak passenger trains, now use the "Hi-Line Bridge" at Valley City. The Soo's main line passes under the trestle near its east end.

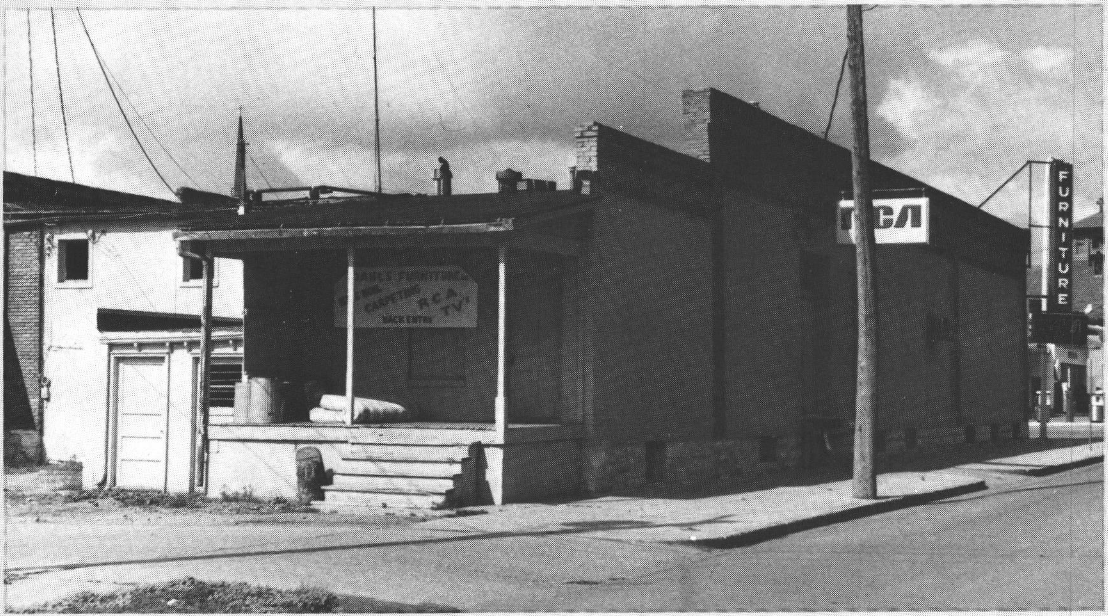
On April 25, 1911, the Valley City Street and Interurban Railway Company entered into an agreement with the Soo Line whereby the electric line would handle the transfer of carload and less-than-carload merchandise and other freight between North Valley City and Valley City for the Soo Line. Interchange of cars between the Soo Line at North Valley City and the Northern Pacific in Valley City would also be handled by the electric line. The VCS&I Ry. Co. would also provide the Soo Line with rooms for offices and a freight depot at its building in downtown Valley City. Rates were established for switching and interchange and a rental of $100 per month was set for the Soo's facilities downtown. This agreement was to continue for a period of 25 years.

continued

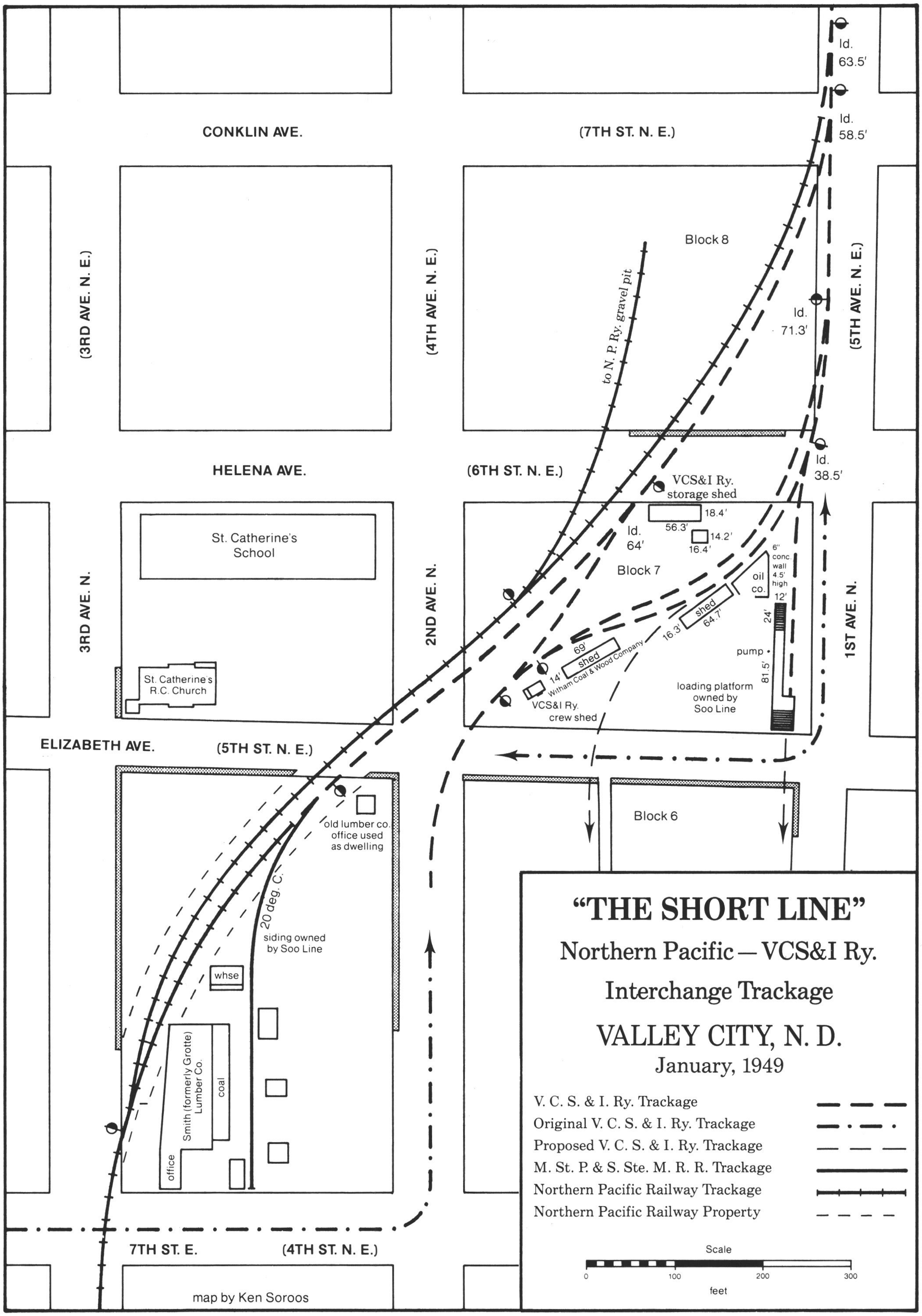
AVERY® POLY-VU







The building formerly owned by the Valley City Street and Interurban Railway Company is located at the corner of what is today Central Avenue and 4th Street N.E. This building originally housed the electric line's power house and car barn-repair shed. The Soo Line also maintained its downtown offices and freight depot-warehouse here from 1911 until 1963. The huge doors led to the interurban's car barn. Tracks to the building were probably removed during World War II. The back part of the building was used as a dwelling by the interurban's operator during the last years of operation and the basement of the building was occupied by Blum's Bakery. *Ken Soroos photos*



"THE SHORT LINE"

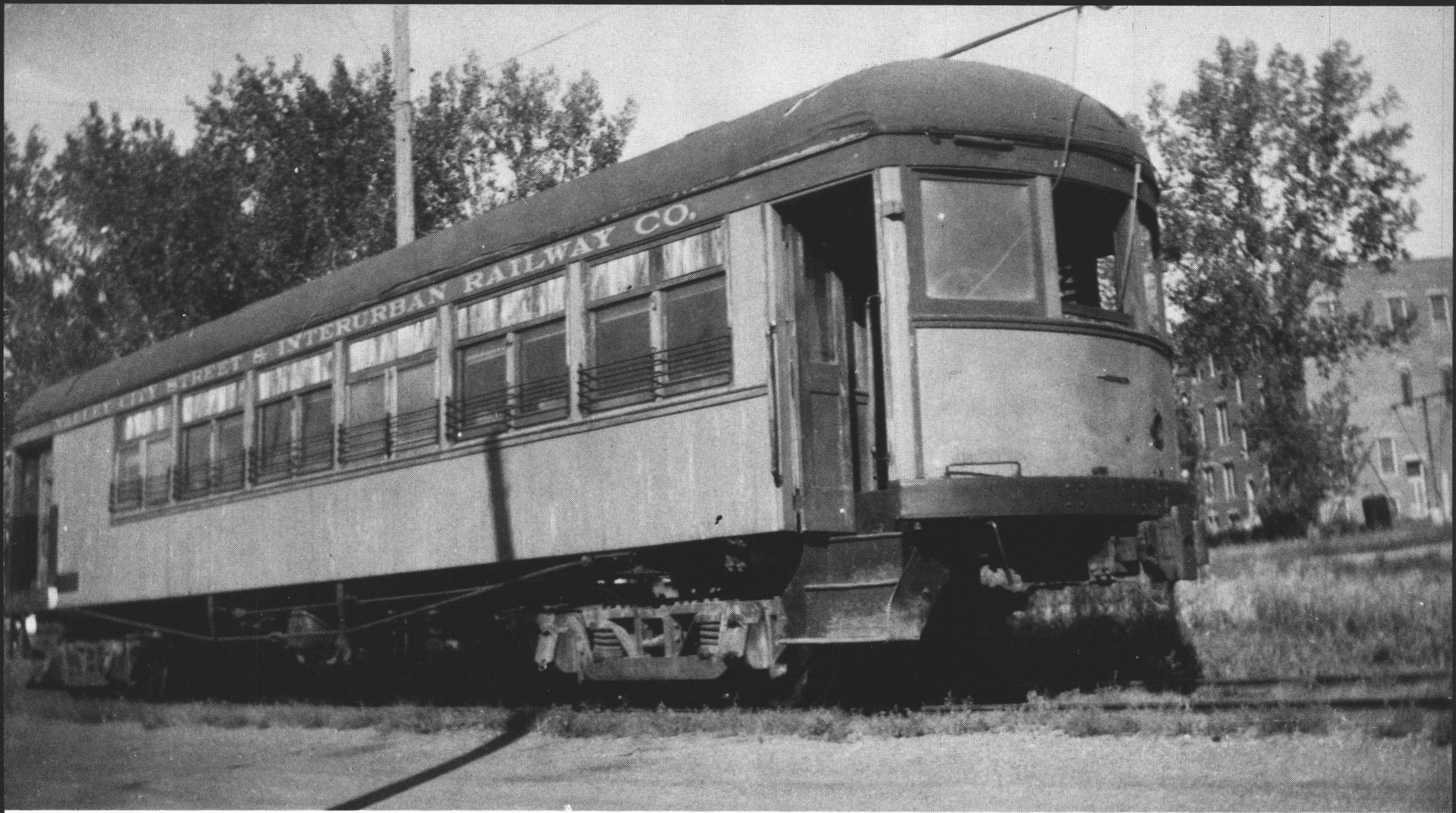
Northern Pacific — VCS&I Ry.

Interchange Trackage

VALLEY CITY, N. D.

January, 1949

V. C. S. & I. Ry. Trackage
Original V. C. S. & I. Ry. Trackage
Proposed V. C. S. & I. Ry. Trackage
M. St. P. & S. Ste. M. R. R. Trackage
Northern Pacific Railway Trackage
Northern Pacific Railway Property
Scale
0
100
200
300
feet
CONKLIN AVE.
(7TH ST. N. E.)
ld. 63.5'
ld. 58.5'
(3RD AVE. N. E.)
(4TH AVE. N. E.)
(5TH AVE. N. E.)
Block 8
to N. P. Ry. gravel pit
ld. 71.3'
HELENA AVE.
(6TH ST. N. E.)
ld. 38.5'
VCS&I Ry. storage shed
18.4'
56.3'
14.2'
16.4'
ld. 64'
St. Catherine's School
Block 7
6" conc. wall 4.5' high
oil co.
12'
24'
3RD AVE. N.
2ND AVE. N.
1ST AVE. N.
shed 64.7'
16.3'
69' shed
Witham Coal & Wood Company
14'
pump
81.5'
St. Catherine's R.C. Church
VCS&I Ry. crew shed
loading platform owned by Soo Line
ELIZABETH AVE.
(5TH ST. N. E.)
Block 6
old lumber co. office used as dwelling
20 deg. C.
siding owned by Soo Line
whse
Smith (formerly Grotte) Lumber Co.
coal
office
7TH ST. E.
(4TH ST. N. E.)
map by Ken Soroos



Car No. 2 is shown in its earlier two-tone paint scheme with lettering. The photo was probably taken in the 1930's.
Robert Hanft photo

To facilitate interchange between the Soo Line, the VCS&I Ry. and the Northern Pacific, track arrangements were modified. A small yard was developed on the near north side of Valley City. This area became known as "the Short Line." Some spur tracks in this yard and along the VCS&I Ry. were owned by each of these three railroad companies.

In 1913 the VCS&I Ry. Co. stopped generating its own power and began using power purchased from the Municipal Power Company. This power was converted to 600 volts DC by the VCS&I Ry. Co. using a motor-generator set.

A new, larger 51-foot steel-underframed combination motor car was built by the McGuire-Cummings Manufacturing Company for the VCS&I Ry. Co. in 1915. This car, No. 2, served the line for more than 30 years.

THE 1920's — COMPETITION FROM MOTOR TRANSPORTATION

During the 1920's the passenger fare between Valley City and North Valley City was 25 cents. Dewey Christopherson and Bud English, long-time Valley City residents, related a story about a salesman who rode the interurban every Monday night to catch a Soo passenger train. He derived great pleasure from handing Ed Briggs, general manager of the line and operator of the motor car, a $20 bill each week and asking for change for his 25 cent fare. Briggs would often have to run to several businesses in downtown Valley City in order to find the necessary change. This went on for several weeks until one Monday night when Briggs triumphantly handed the salesman a large bag with $19.75 in pennies, nickels and dimes which he had gathered earlier in the day.

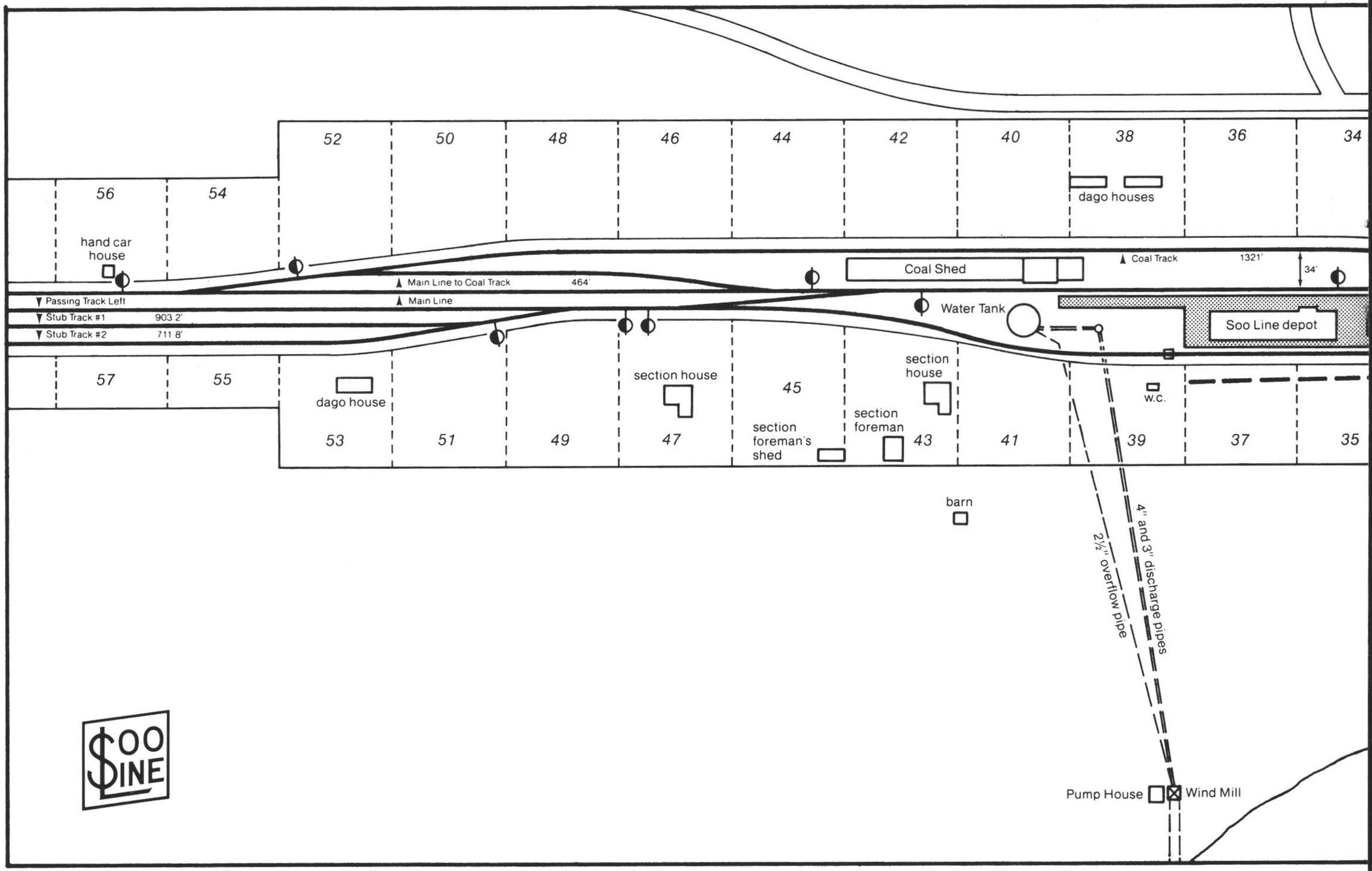
The franchise to operate was renewed by ordinance in 1923, but the advent of motor transportation began to cut into the business of the VCS&I Ry. Express traffic originally handled by the electric line was taken over by American Express Agency trucks. Most of the passengers began to ride taxis directly between North Valley City and their hotels or homes. Competition for riders between the electric line and taxis resulted in a heated, ongoing feud between Ed Briggs and Charlie Jones of Jones Taxi Company. This conflict became so serious that the electric line considered abandonment of its operations to the Soo depot at North Valley City. In order to prevent discontinance of service, the Soo Line granted the VCS&I Ry. Co. the exclusive right to solicit handling and hauling of baggage and passengers on its depot premises at North Valley City for a five year period beginning January 8, 1927.

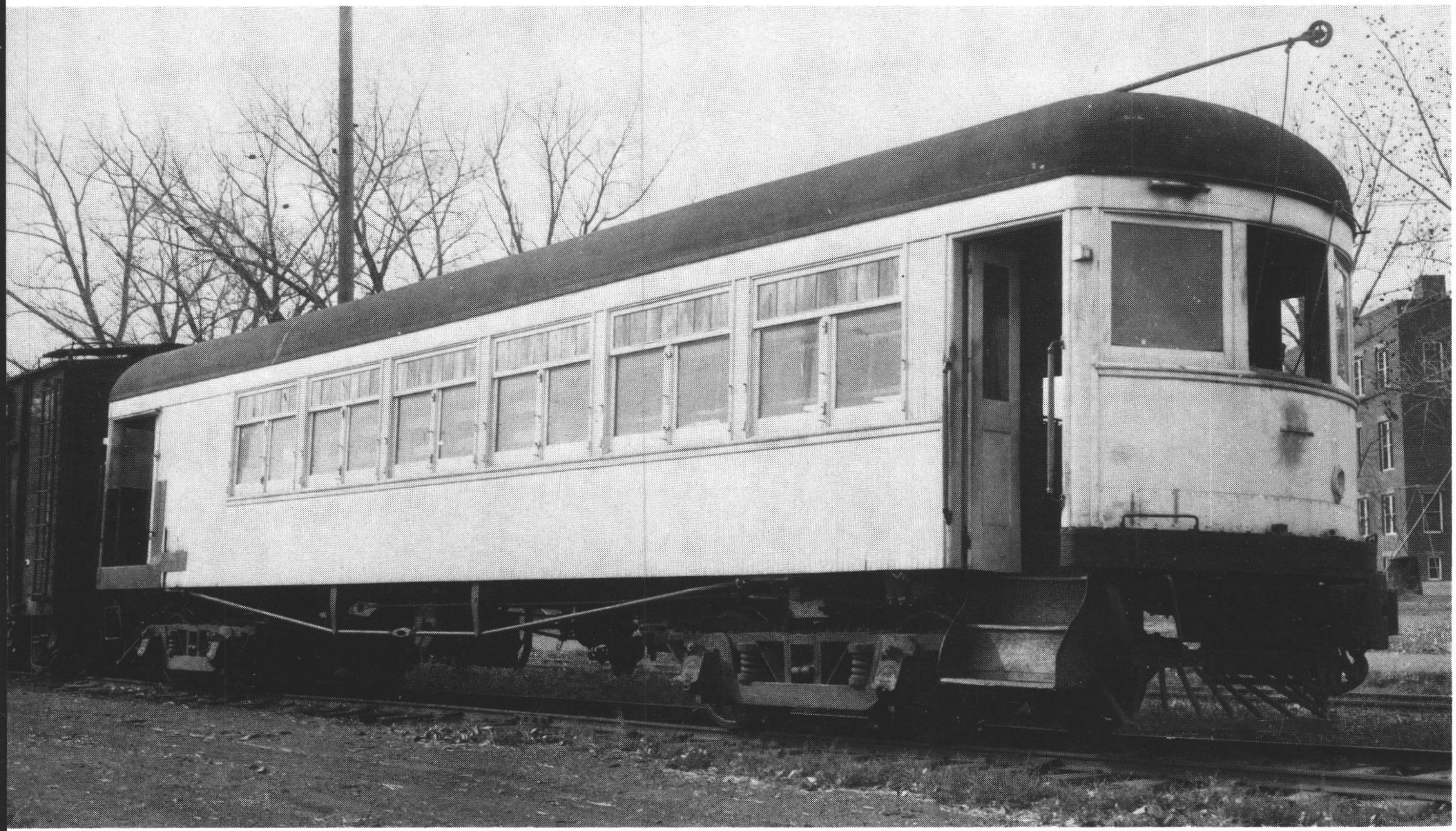
INDUSTRIES ON THE ELECTRIC LINE

In 1930 the industries served by the Valley City Street and Interurban Railway were:

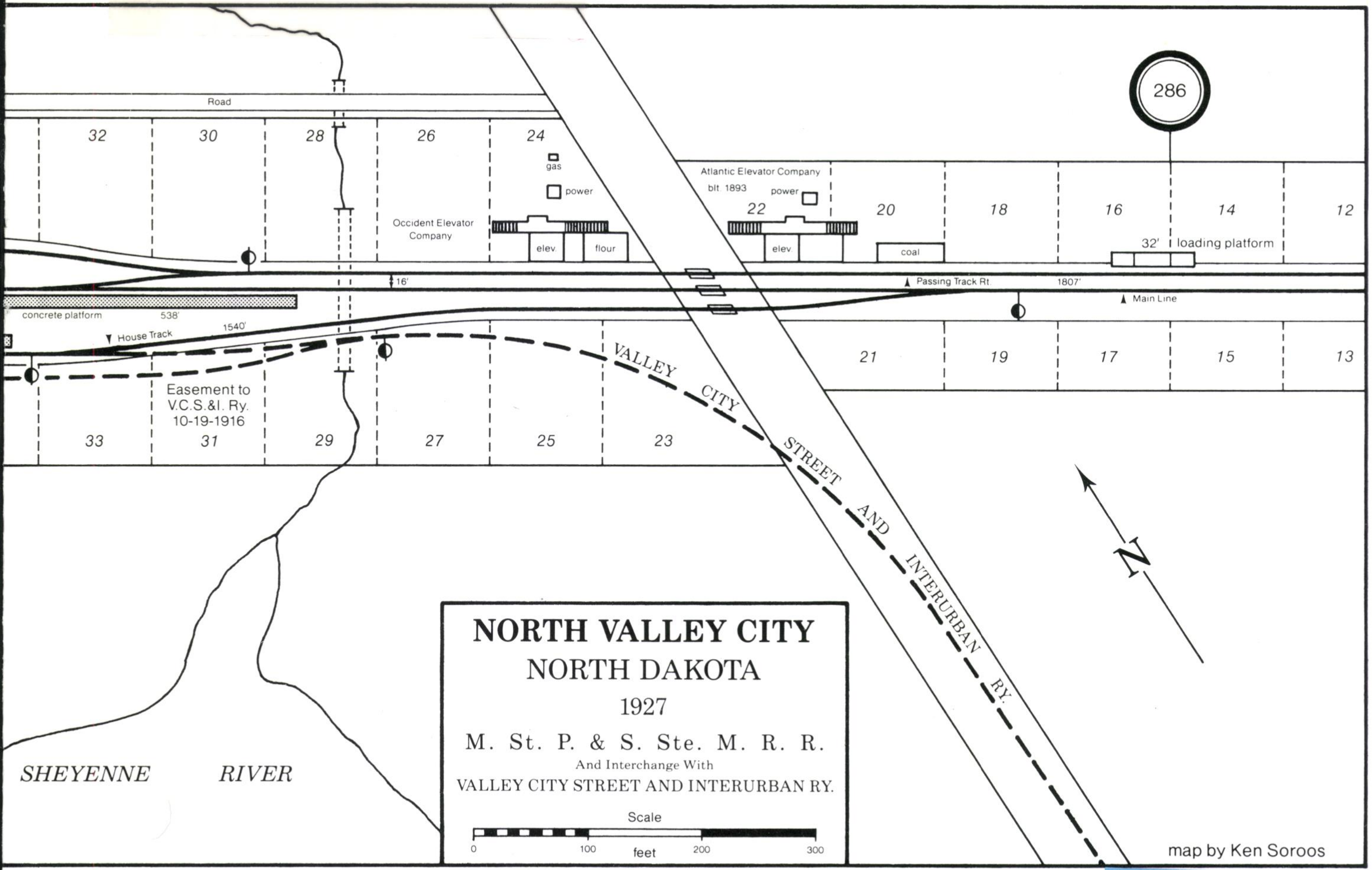
Pegg Oil Company	on VCS&I Ry. Co. property
White Eagle Oil Company	on VCS&I Ry. Co. property
Witham Coal & Wood Company	on VCS&I Ry. Co. property
Grotte Lumber Company	on Soo Line property
Northwest Nursery Company	on private property with spur from VCS&I Ry. owned by Soo Line
Miller Fibre Company tow mill	on private property
Miller Fibre Company gravel pit	spur from VCS&I Ry. owned by Soo Line
N. P. Ry. water treating plant	spur from VCS&I Ry. owned by N. P. Ry.
Soo Line stockyards	spur from VCS&I Ry. owned by Soo Line

Most of the industries on VCS&I Ry. Co. property were originally financed by the company and some of them paid no rental. Besides these industries, the Soo Line maintained a loading platform and a team track downtown for


52
50
48
46
44
42
40
38
36
34
56
54
dago houses
hand car house
Coal Shed
Coal Track
1321'
34'
Main Line to Coal Track
464'
Passing Track Left
Main Line
Stub Track #1
903.2'
Stub Track #2
711.8'
Water Tank
Soo Line depot
57
55
dago house
section house
45
section house
W.C.
section foreman's shed
section foreman
53
51
49
47
43
41
39
37
35
barn
4" and 3" discharge pipes
2½" overflow pipe
Pump House
Wind Mill



Taken from an almost identical angle and location, this view shows the later solid color scheme without lettering. This photo was taken about 1945.
Robert Hanft photo


Road
32
30
28
26
24
gas
power
Occident Elevator Company
elev
flour
Atlantic Elevator Company
blt. 1893
power
22
elev
20
coal
18
16
14
12
286
32'
loading platform
16'
Passing Track Rt
1807'
Main Line
concrete platform
538'
House Track
1540'
21
19
17
15
13
Easement to V.C.S.&I. Ry. 10-19-1916
33
31
29
27
25
23
VALLEY CITY STREET AND INTERURBAN RY.
N
SHEYENNE RIVER
NORTH VALLEY CITY
NORTH DAKOTA
1927
M. St. P. & S. Ste. M. R. R.
And Interchange With
VALLEY CITY STREET AND INTERURBAN RY.
Scale
0
100
200
300
feet
map by Ken Soroos

Inside Centerfold
pages 20 - 21
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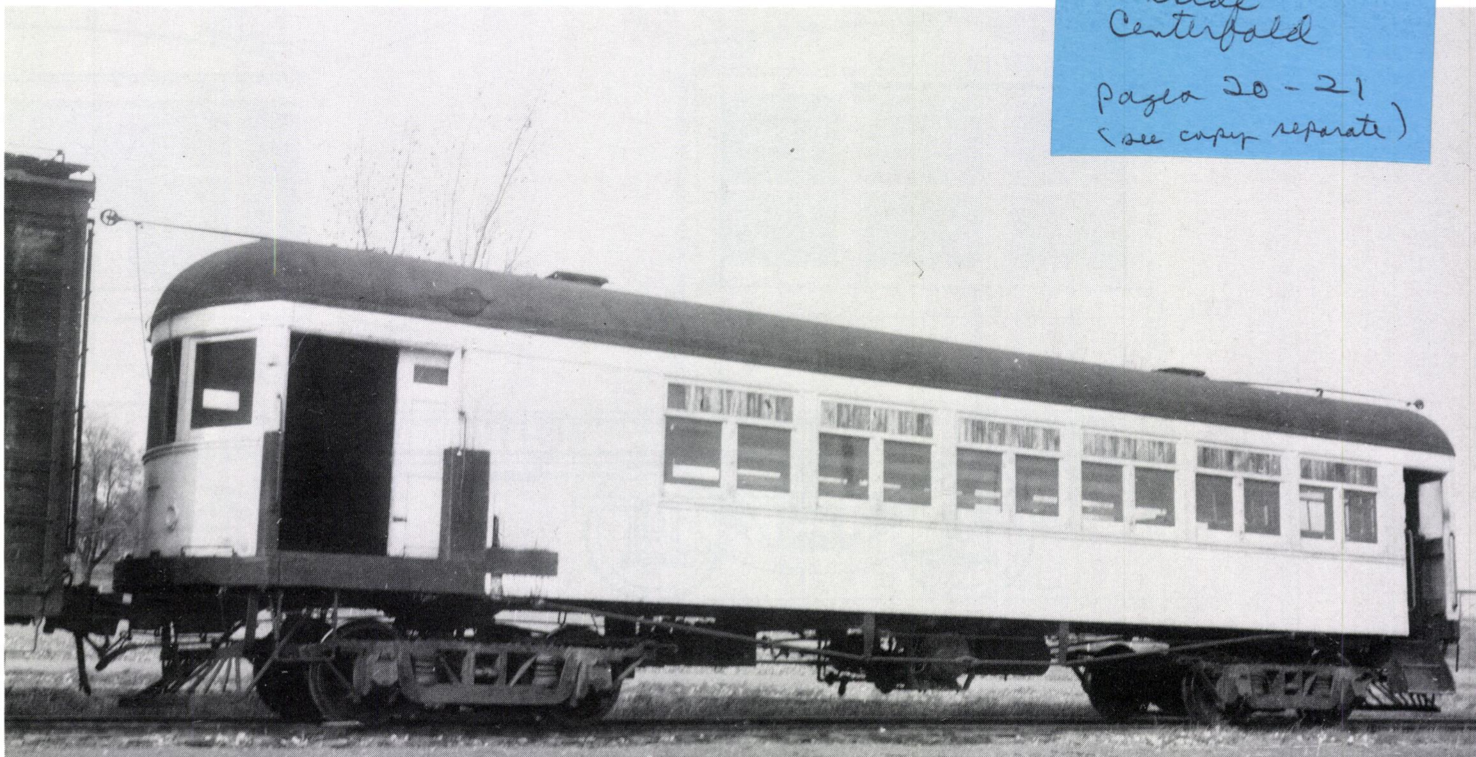
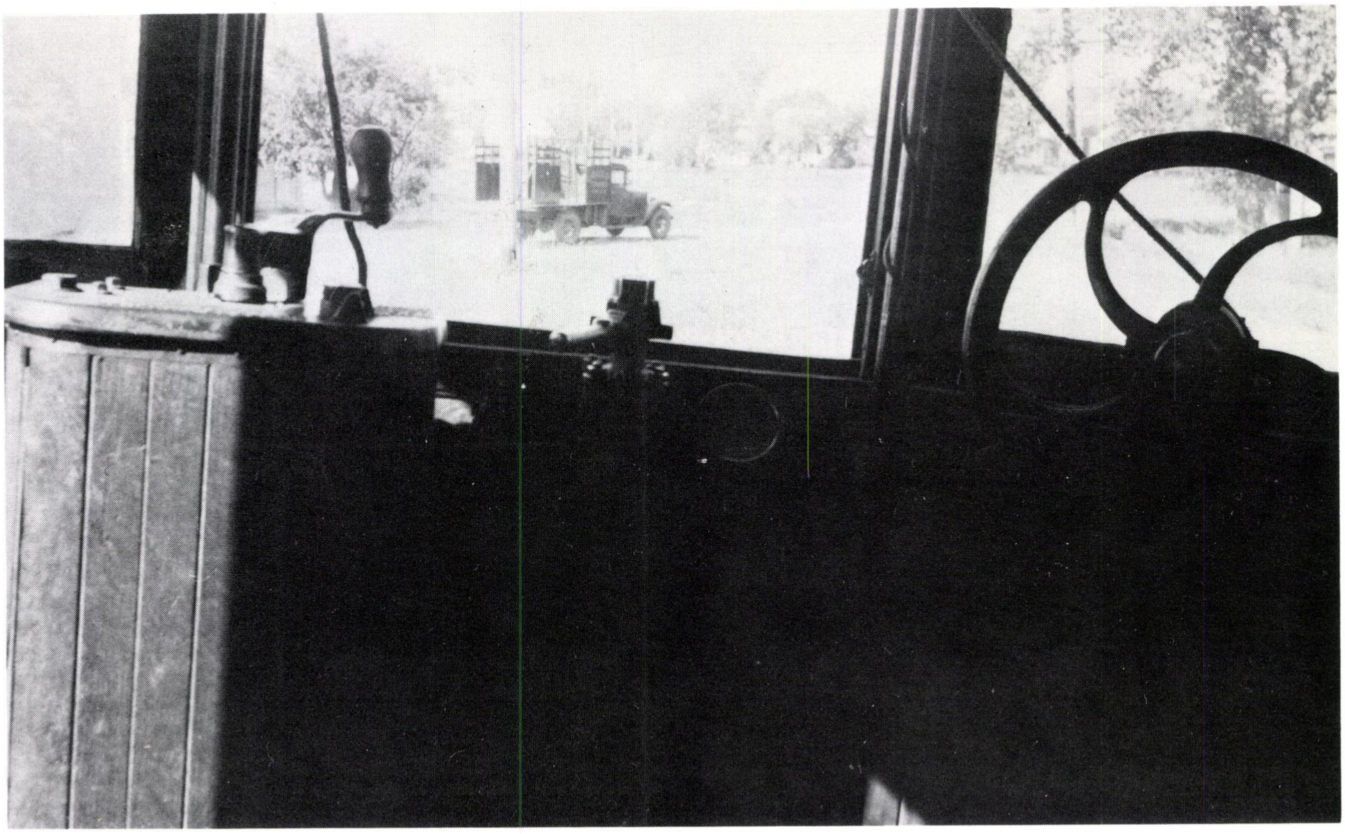


This side view of car No. 2 was taken at the same time. The upper window sash area still contains individual panes of colored, translucent decorative glass. *Robert Hanft photo*



This operator's view out the open front window of car No. 2 shows the controller, the air brake control valve with gauge, the brake wheel and the loose-hanging trolley pole rope. *Robert Hanft photo*

unloading carload and less-than-carload shipments to Valley City businesses.

Watermelons were sometimes shipped in stock cars to the Stacy Fruit Company and were unloaded at the downtown yard. Neighborhood kids took advantage of the times when the delivery truck was away to help themselves to a summer treat. The same thing happened when candy was shipped in by freight car. The kids tended to overdo a good thing, so there were a lot of stomach aches among those involved.

THE 1930's — PROSPECTS OF ABANDONMENT

In September, 1930, Ed Briggs was killed when the car he was driving was hit by a passenger train. It was anticipated by the Soo Line that operation of the VCS&I Ry. might be abandoned. The Soo Line secured a thorough analysis of the financial status and physical plant of the VCS&I Ry. Co. to be ready to purchase the electric line if necessary. Actually, the Soo Line always had access to detailed information about the VCS&I Ry. Co. The Soo's Valley City agents were all minor shareholders in the VCS&I Ry. Co. and all had served as Secretary-Treasurer of the company from its beginning until the purchase of the electric line by the Soo.

The Soo Line agent at Valley City reported that he felt there would be no change in operating arrangements following Briggs' death. Ed Briggs' controlling interest in the company was divided among his wife and three daughters. Ruth M. Briggs, one of his daughters, soon became President of the VCS&I Ry. Co. and M. H. Mason, husband of June Briggs Mason, became the General Manager.

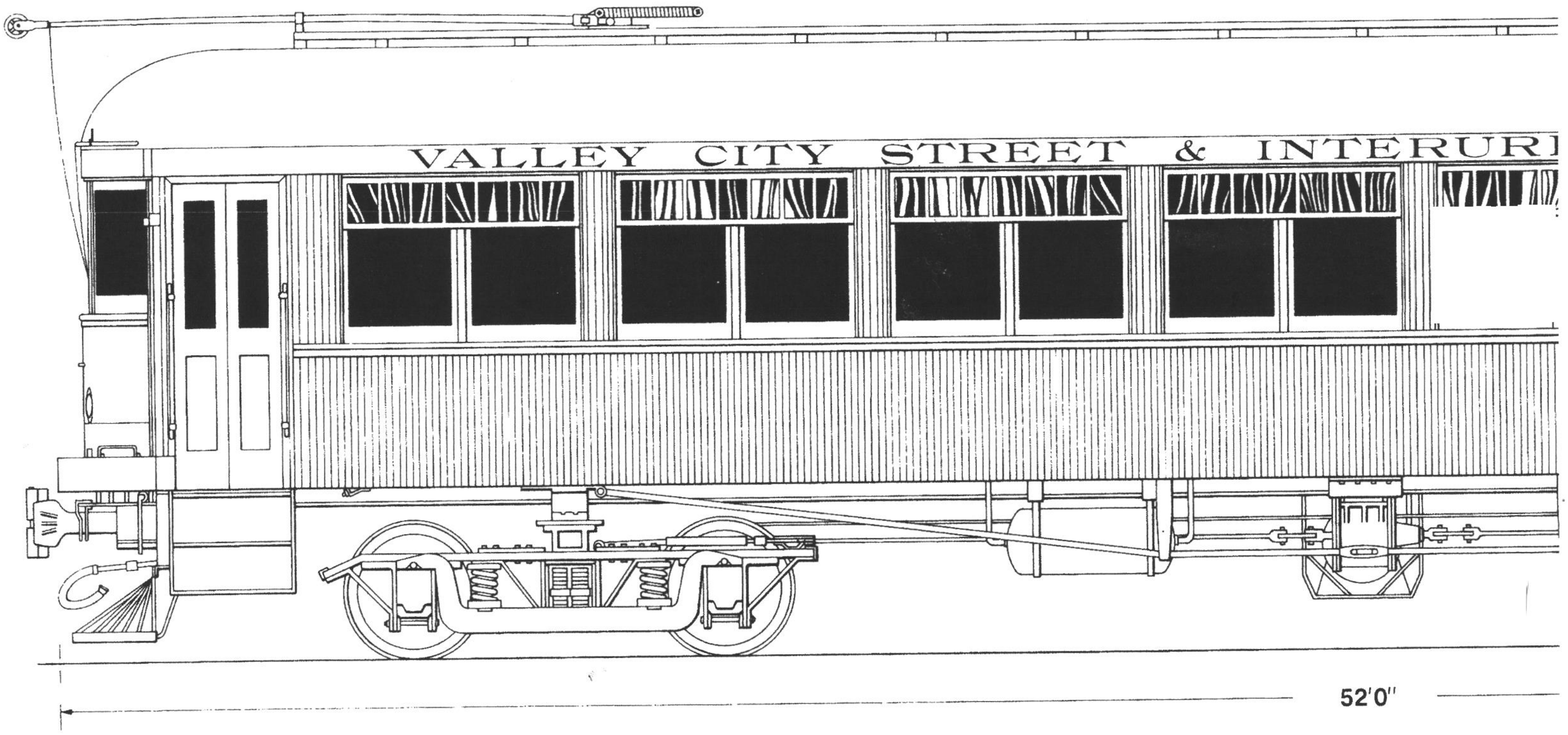
"Mitt" Mason took over as operator of the motor car and along with one hired helper took care of the track work and general maintenance of the property. This work was usually done only when absolutely necessary and then with the use of any materials readily available. When Mason was given a hard time about the haphazard nature of operation on the line, he would reply, "We may not be as long as the Soo, but we're just as wide."

The VCS&I Ry. Co. didn't report any profits in the years 1931-34 and anticipated heavy maintenance and repair expenses. In 1936 the original 1911 agreement between the Soo Line and the VCS&I Ry. Co. covering the transfer of cars and rental of the office and freight depot downtown was supplemented and renewed for 10 more years until April 25, 1946. The rates paid to the VCS&I Ry. Co. for switching and transfer of cars were raised and broadened, but rent for the Soo facilities downtown remained at $100 per month.

The Soo's concern about the possible abandonment of operations and its resulting loss of Valley City freight business continued from the mid-1930's. Periodic reports on the condition of the line were obtained for the Soo Line by its Valley City agents. According to VCS&I Ry. Co. financial statements, the electric line made small profits each year from the late 1930's to the mid-1940's. In 1946 the basic agreement of 1911, amended by the supplemental agreement of 1936, was extended for an additional period of ten years until April 25, 1956.

THE END OF PASSENGER SERVICE

Passenger service to the Northern Pacific depot had been discontinued in the 1930's, but the downtown car shed and freight depot remained in use until the 1940's. The franchise to operate the car on the city streets ran until 1945 and at that time was not renewed. It is likely that most of the tracks were removed from the city streets sometime during World War II and were used for scrap metal in the war effort. By the end of World War II, the interurban line no longer carried passengers. Car No. 2 was retired in 1948 after 33 years of service, but it remained on the property until the spring of 1953, when it was dismantled and sold for scrap.



VALLEY CITY STREET AND INTERURB

CAR NO. 2

Combination Baggage-Passenger Interurb
built by McGuire-Cummings Manufacturing Co
in service 1915-1947

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drawn for the SLHTS by

KEN SOROOS

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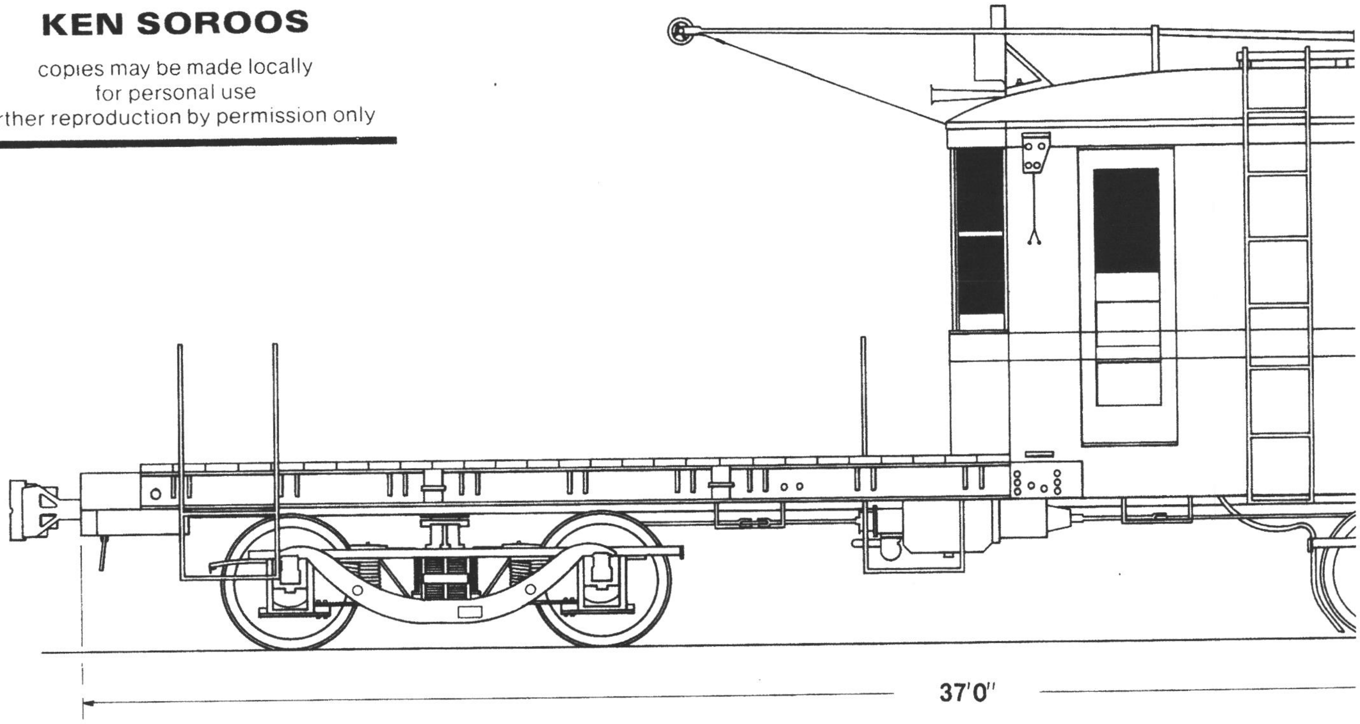
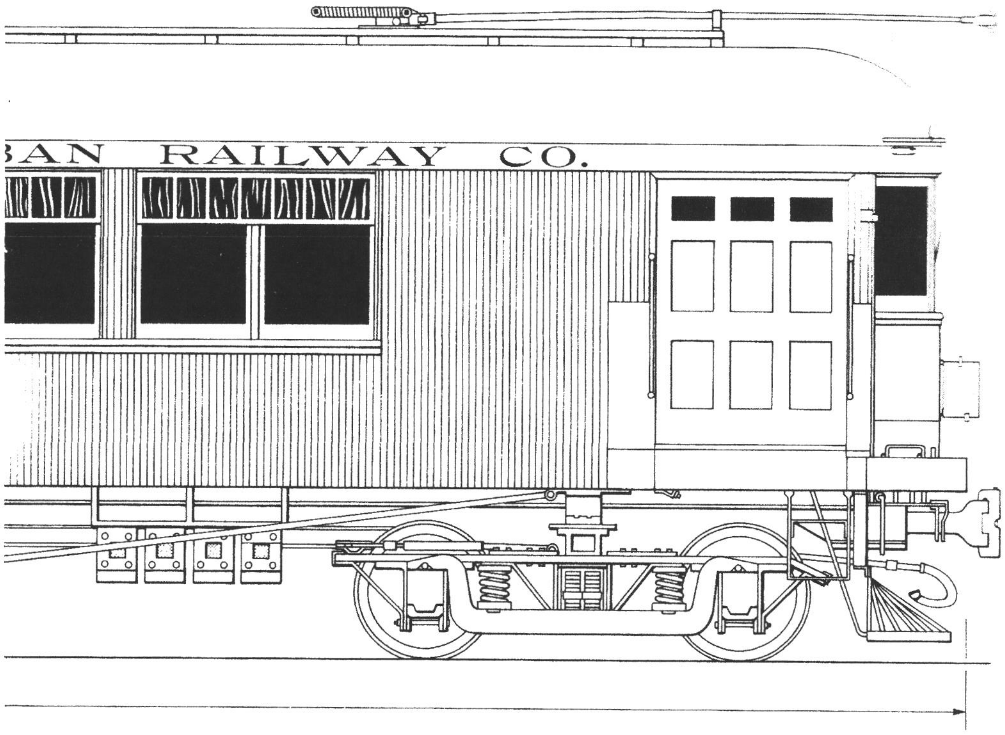
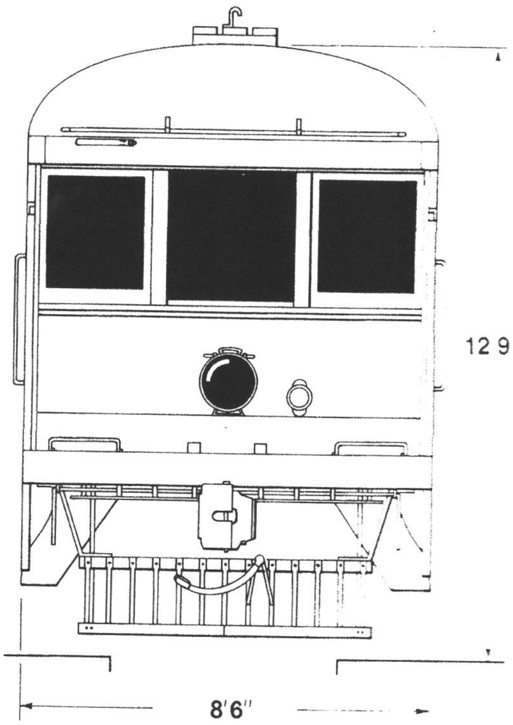


VALLEY CITY STREET AND INTERURBAN RY. CO.

ELECTRIC LOCOMOTIVE

built by Twin Cities Rapid Transit Company (1917)
rebuilt by Northern Ordnance Incorporated (1944)
in service 1947-1953

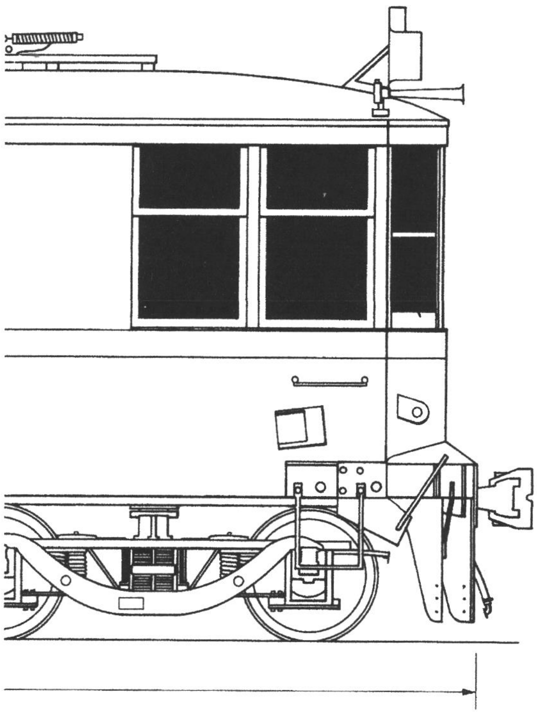

BAN RAILWAY CO.

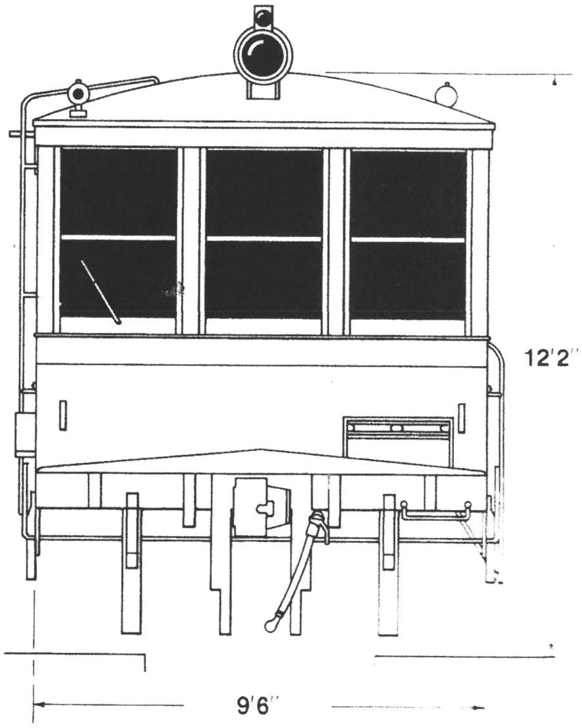


N RY. CO.

Car
any (1915)

0 Scale: ¼" = 1 foot





THE LAST LOCOMOTIVE

Car No. 2 was replaced by an electric freight locomotive purchased from Northern Ordnance Incorporated of Minnesota in December, 1947 for $8,000. This locomotive was built in 1917 by the Twin City Rapid Transit Co. as a combined snow plow-work car-locomotive for the St. Paul Southern Electric Ry. The snow plow and wing plow were detachable. After the demise of the St. Paul Southern, the car was sold in 1929 to the Minneapolis, Anoka and Cuyuna Range Railroad (for $1,200). The car acquired a line tower on its rear deck, but this was removed when the car was rebuilt in 1944. This rebuilding was undertaken after the property of the MA&CR RR was acquired by the Northern Ordnance Incorporated during World War II. Concrete ballast blocks replaced the line tower on the rear deck and the car was painted in a flashy patriotic color scheme consisting of a red roof and blue body with white trim. The car came to the Valley City Street and Interurban Railway minus its snow plow and ballast blocks, but it wore its colorful paint scheme in a rather faded form for six years until the end of its service in 1953.

THE LAST YEARS OF OPERATION

In 1948 the Valley City Street and Interurban Railway Company petitioned the Soo Line for an increase in the rates specified in its transfer and rental agreement. After investigating the financial status of the VCS&I Ry. Co., the Soo agreed to a 20% increase in rates effective September 1, 1948.

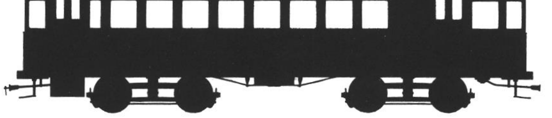
Another rate increase was sought by the VCS&I Ry. Co. in November, 1951 on the basis that it was unable to maintain its track properly. The Soo Line asked its division engineer and roadmaster to inspect the electric line's property and submit a report regarding its condition. They found that about 500 ties needed replacement and that some of the industry spurs were badly out of line and surface. Based on previous inspections, they reported that it would soon be necessary to redrive all piling in the bridge over the Sheyenne River. The Soo granted the VCS&I Ry. Co. another increase in rates effective May 1, 1952; but it was known that takeover of the electric line by the Soo was only a short time away.

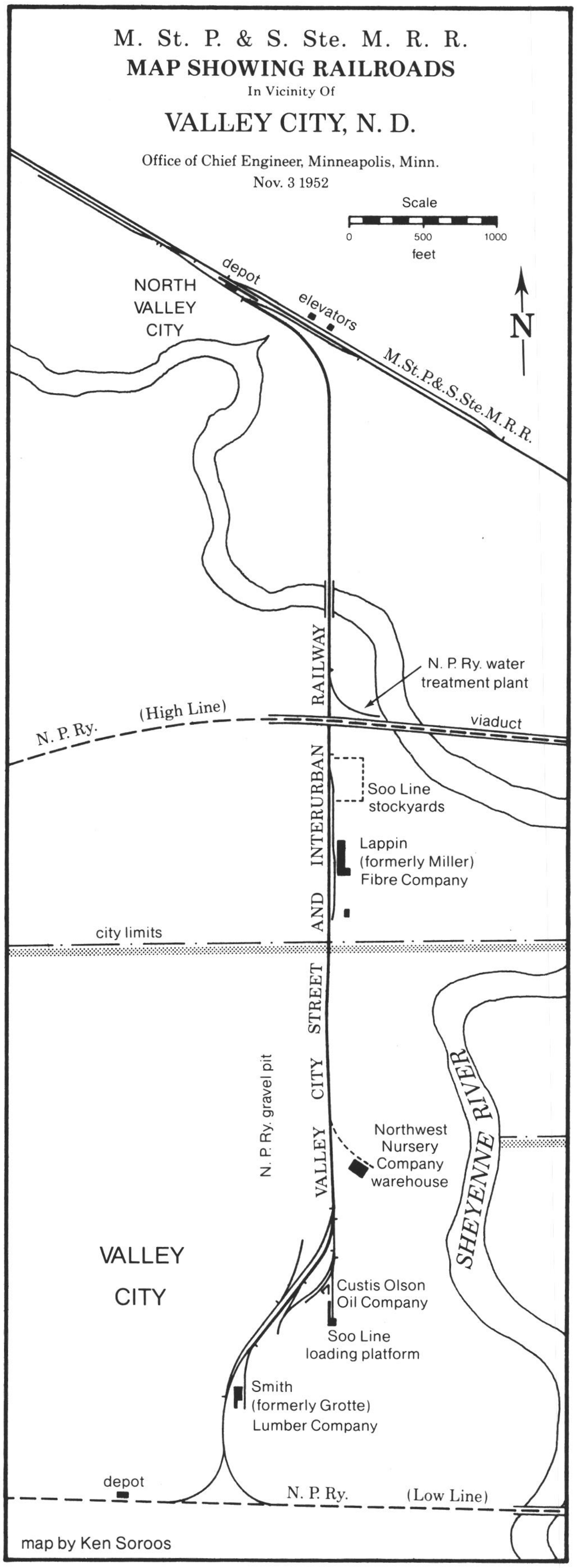
SURVEY OF THE ELECTRIC LINE'S PROPERTY

On October 6, 1952, a detailed survey of the business handled at its Valley City station and the financial and physical condition of the VCS&I Ry. Co. was submitted to the Soo Line directors along with a recommendation that the Soo acquire the electric line. In 1951 the Soo Line had received and forwarded 940 cars at Valley City. These included 156 cars of grain forwarded from the elevator at North Valley City. During 1951 there were 228 loaded cars delivered to the Northern Pacific and 816 loaded cars received from the Northern Pacific.

The report stated that the 1951 net income of the VCS&I Ry. Co. was $471.70. No dividends had been paid on the capital stock of the company since 1946. The company owned 1.75 miles of trackage and the building in the downtown Valley City. It also owned two old structures.

continued



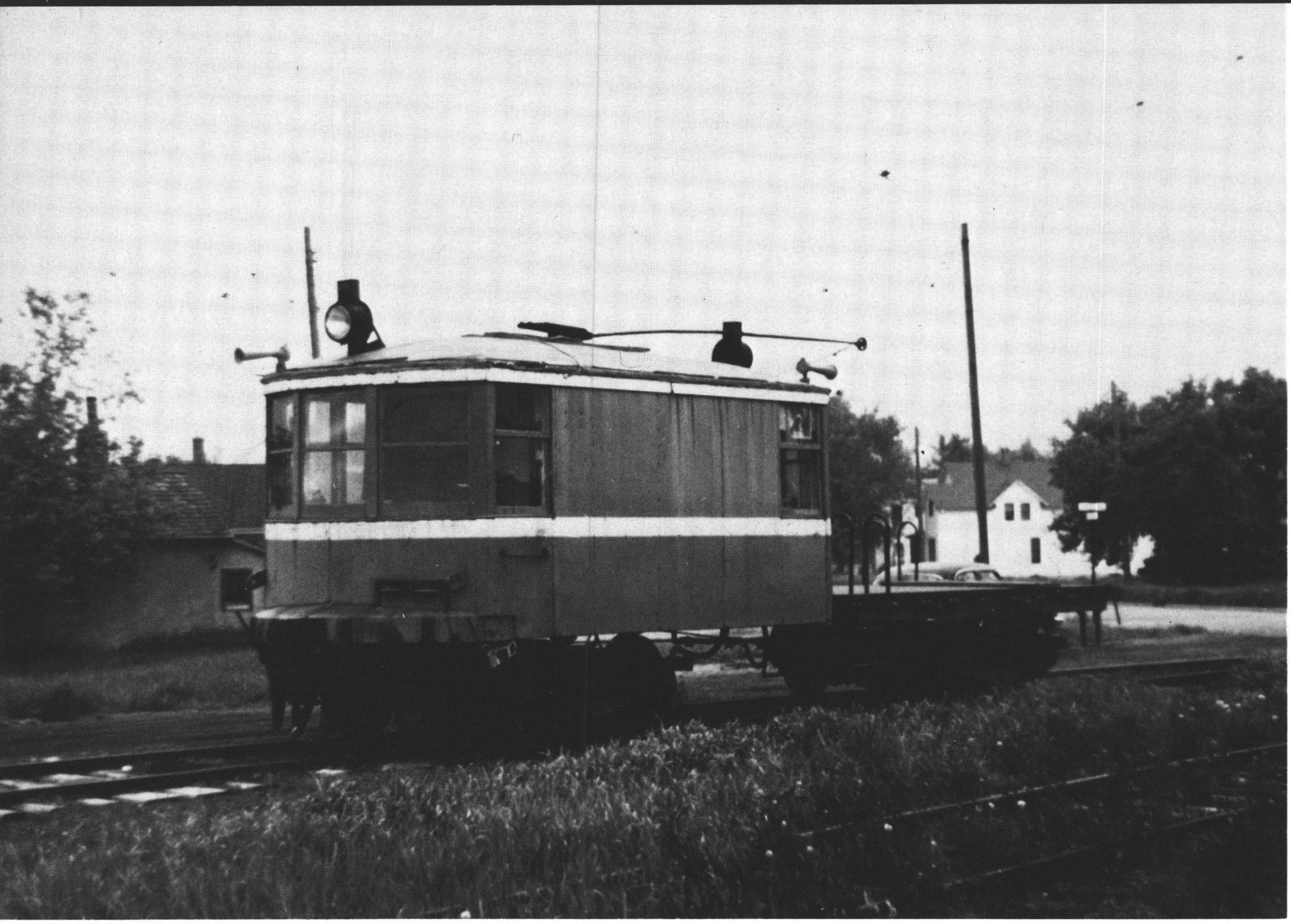


M. St. P. & S. Ste. M. R. R.
MAP SHOWING RAILROADS
In Vicinity Of
VALLEY CITY, N. D.
Office of Chief Engineer, Minneapolis, Minn.
Nov. 3 1952

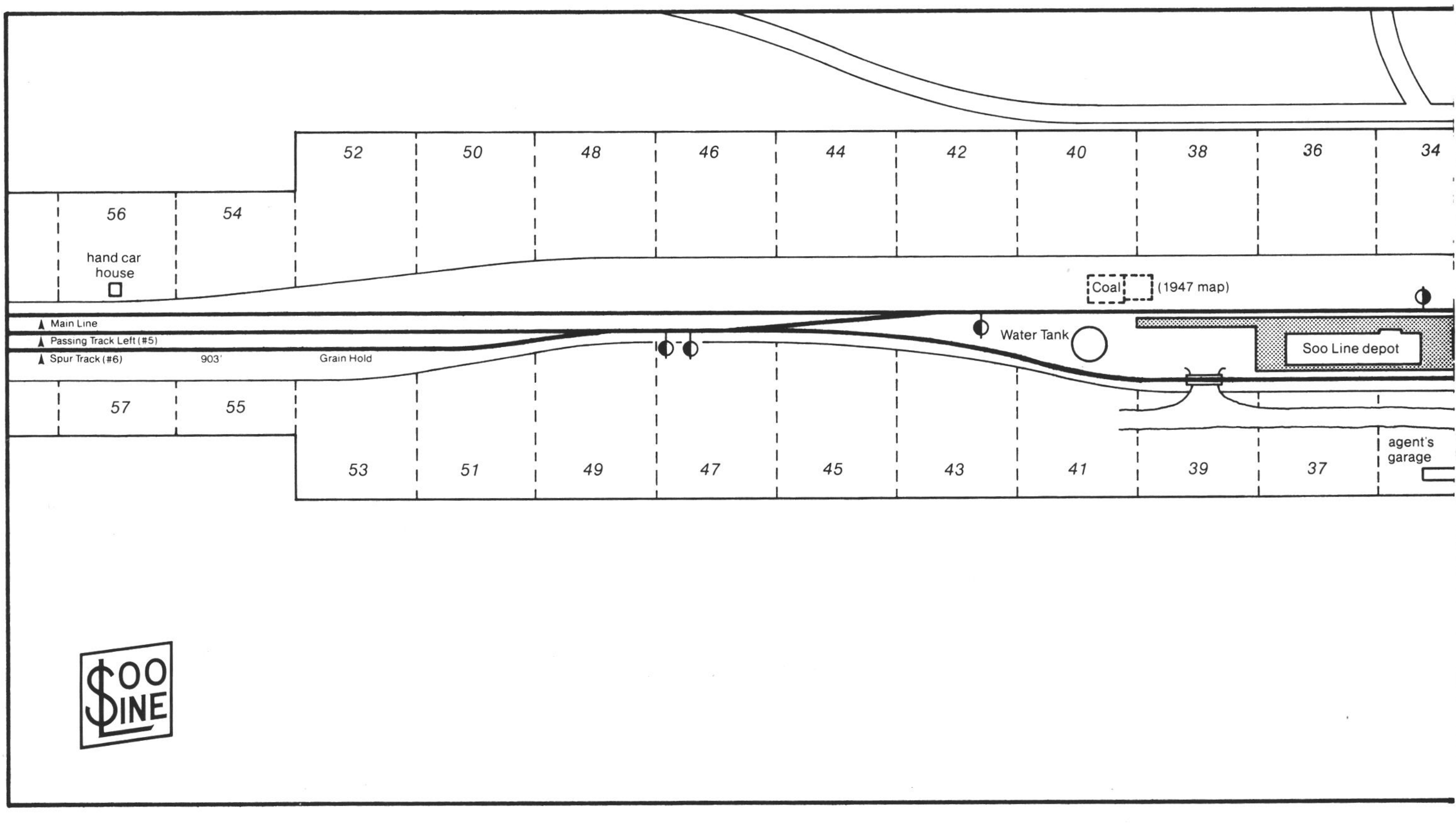
Scale
0
500
1000
feet
N
depot
elevators
M.St.P.&.S.Ste.M.R.R.
NORTH VALLEY CITY
VALLEY CITY STREET AND INTERURBAN RAILWAY
N. P. Ry. water treatment plant
N. P. Ry.
(High Line)
viaduct
Soo Line stockyards
Lappin (formerly Miller) Fibre Company
city limits
N. P. Ry. gravel pit
Northwest Nursery Company warehouse
SHEYENNE RIVER
VALLEY CITY
Custis Olson Oil Company
Soo Line loading platform
Smith (formerly Grotte) Lumber Company
depot
N. P. Ry.
(Low Line)

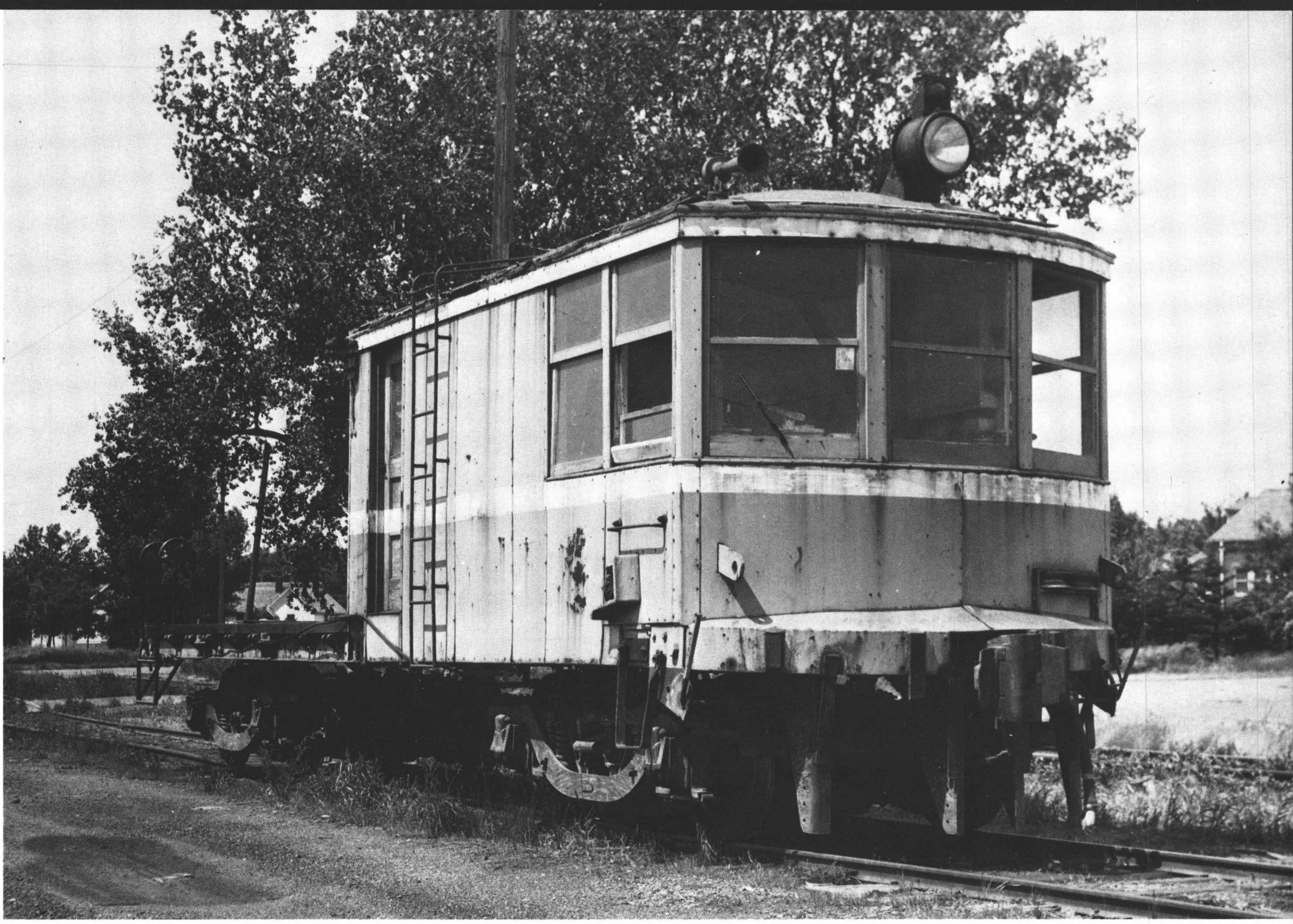
map by Ken Soroos

Attend the Fourth Annual Soo Weekend — September 19, 1981

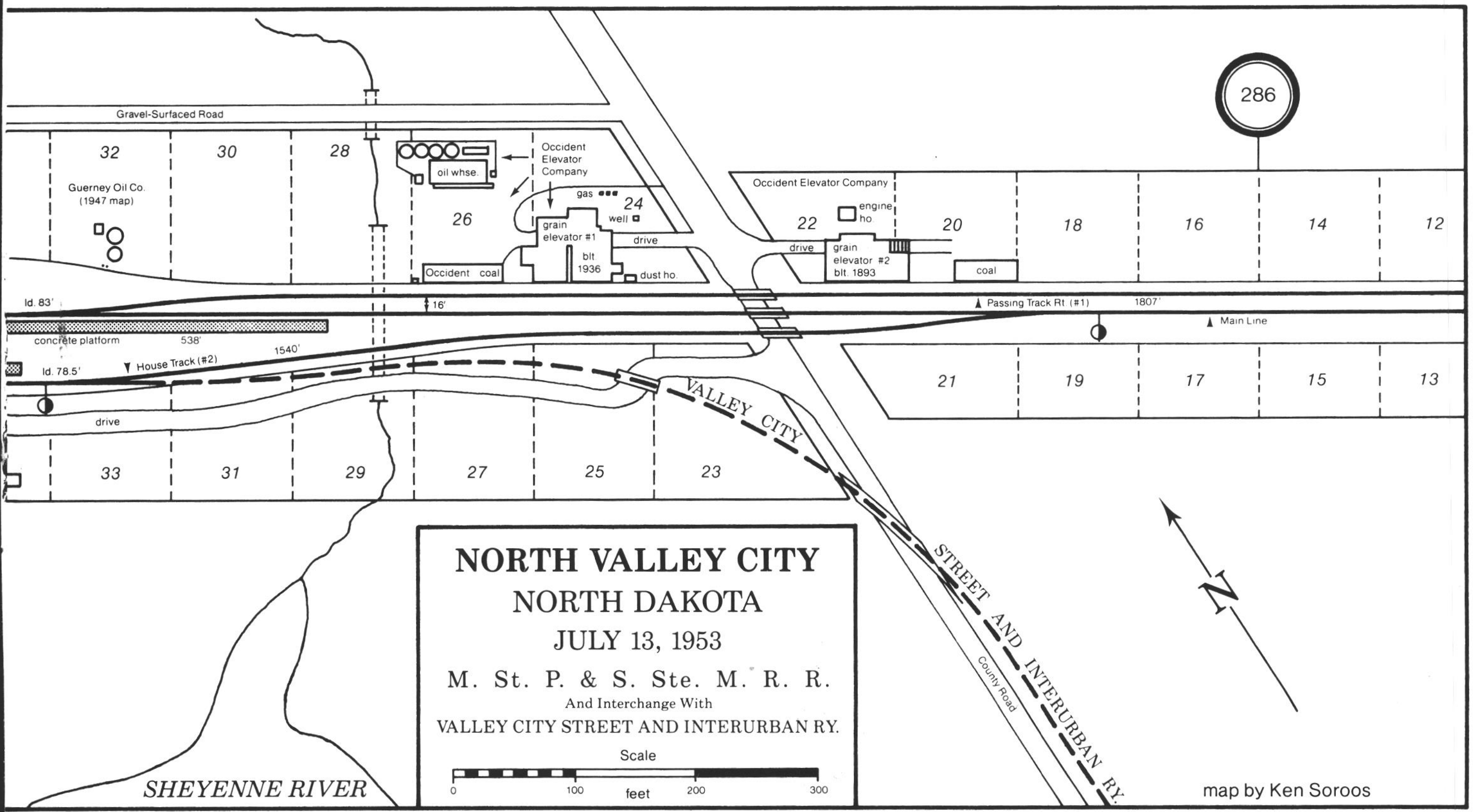


Former Minneapolis, Anoka and Cuyuna Range Railroad work motor-snow plow was purchased by the VCS&I Ry. in 1947 to replace combination car No. 2. This photo, taken about 1950, shows the car resting near the yard office.
Guy Kieckhefer collection

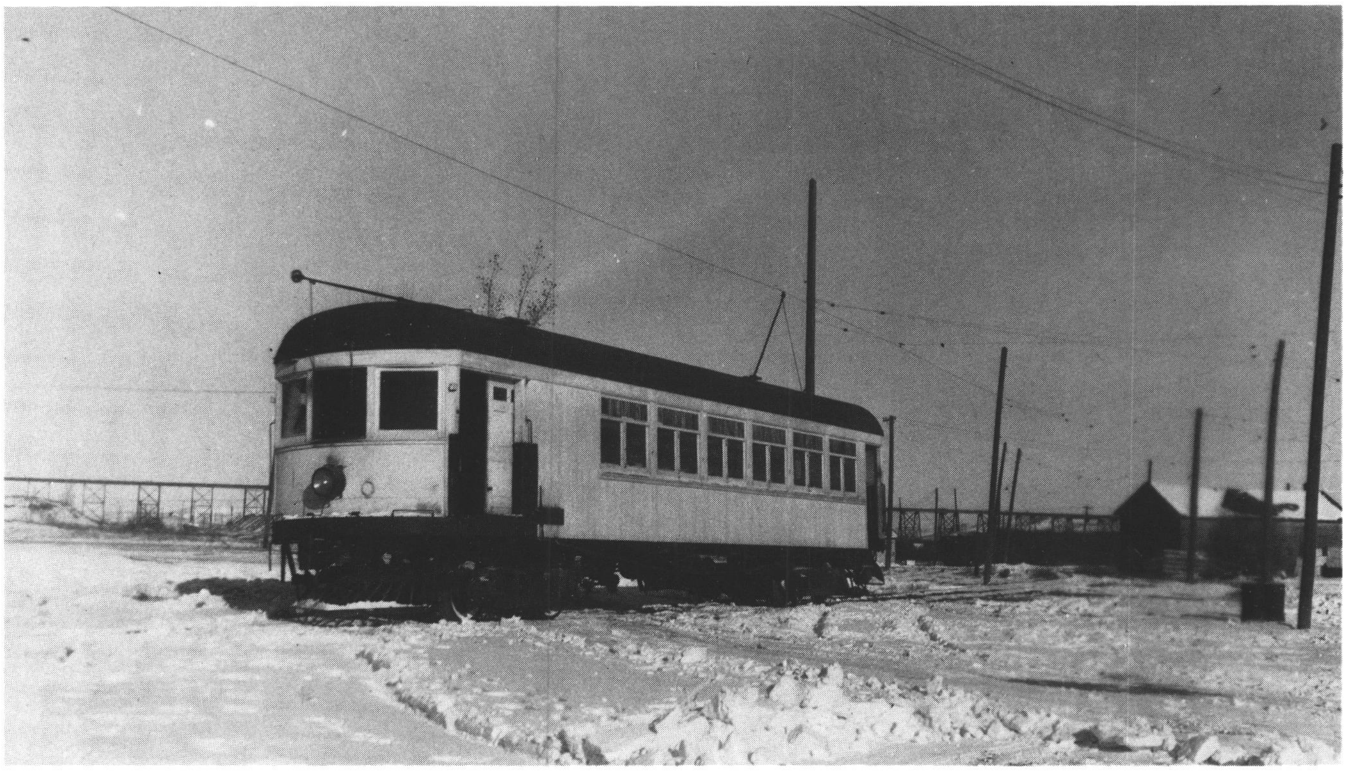

52
50
48
46
44
42
40
38
36
34
56
54
hand car house
Coal
(1947 map)
Main Line
Passing Track Left (#5)
Spur Track (#6)
903'
Grain Hold
Water Tank
Soo Line depot
57
55
53
51
49
47
45
43
41
39
37
agent's garage
SOO LINE



The photo shows the last operating locomotive of the VCS&I Ry. a few months before the Soo Line took over operation of the line. Taken by a Soo Line employee on July 3, 1953, this photo was for the use of the shop crew at Enderlin so it would be ready to handle the car when it was shipped to them for dismantling. *Soo Line photo, Stuart Nelson collection*



NORTH VALLEY CITY
NORTH DAKOTA
JULY 13, 1953
M. St. P. & S. Ste. M. R. R.
And Interchange With
VALLEY CITY STREET AND INTERURBAN RY.
Scale
0
100
feet
200
300
SHEYENNE RIVER
map by Ken Soroos
286
N
Gravel-Surfaced Road
32
30
28
26
24
22
20
18
16
14
12
Guerney Oil Co.
(1947 map)
oil whse.
Occident Elevator Company
Occident Elevator Company
gas
well
grain elevator #1
blt 1936
drive
dust ho.
Occident coal
engine ho
grain elevator #2
blt. 1893
coal
drive
ld. 83'
16'
Passing Track Rt. (#1)
1807'
Main Line
concrete platform
538'
1540'
House Track (#2)
ld. 78.5'
drive
21
19
17
15
13
33
31
29
27
25
23
VALLEY CITY STREET AND INTERURBAN RY.
County Road



Car No. 2 is ready for a morning's work at the downtown yard in Valley City. The old VCS&I Ry. Co. storage shed is visible at the right. The electric line passes under the three-quarter-mile long Northern Pacific viaduct on its way to the Soo Line depot. *Warren Edward Miller photo, Railway Negative Exchange collection*

One was an old storage shed, possibly a former car barn, and the other was a shelter building used by employees operating the electric locomotive. The company owned the following equipment:

1) the electric locomotive purchased in 1947, in service;
2) the combination motor car purchased in 1915, unserviceable;
3) a snow plow, constructed by the Soo Line.

The bridge was in fair condition, safe for another year or so with existing traffic and slow movement. The track was not safe for heavier equipment or faster speeds than were currently being used. The renewal cost of the bridge would be $13,500 using untreated timber piling.

Two industries remained on the line, the Smith (formerly Grotte) Lumber Company and Curtis Olson's bulk oil plant. The Soo Line had also recently rebuilt its downtown loading platform.

The three sisters who controlled two-thirds of the company's stock had recently expressed an interest in disposing of the railroad portion of the VCS&I Ry. Co. The company was indebted to such an extent that when the time came to renew the bridge, it would not be able to secure the necessary funds. It would then be necessary to cease operation or dispose of the property in some manner. The Northern Pacific had expressed an interest in buying the property. In view of the large amount of business handled by the Soo Line in Valley City, it appeared to be in the interest of the Soo to secure ownership of the electric line.

Because of the excessive cost of operation under its own rate schedules, the Soo Line could not take over and operate the company directly; however, the Soo briefly considered acquiring the electric line through a third company. Operations then could have been continued, paying the current rate of salaries and appointing the agent at Valley City or some other official to be in charge of the operation.

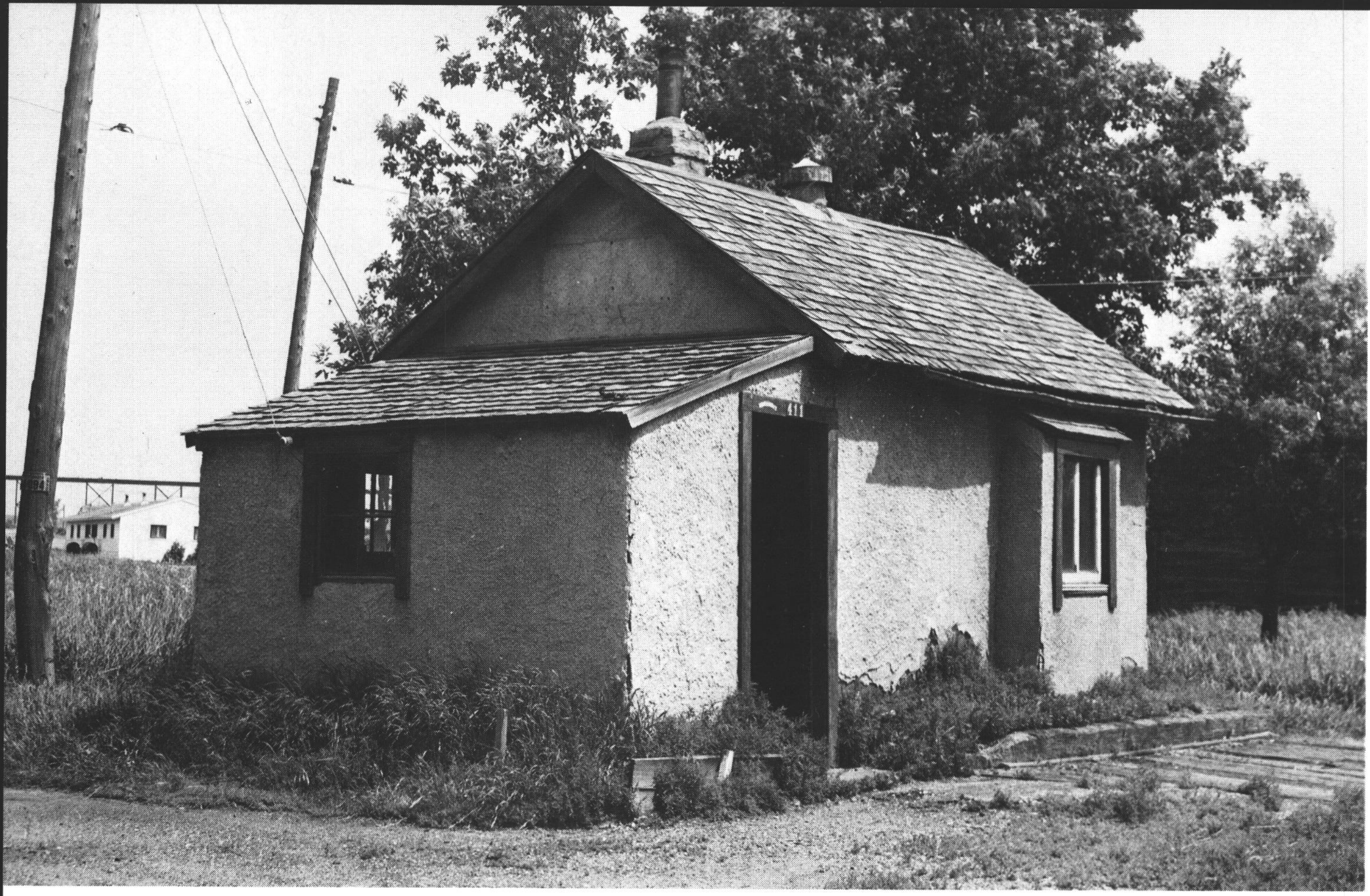
PLANNING FOR THE TAKEOVER BY THE SOO LINE

On December 15, 1952, Soo Line division officials from Enderlin met in Valley City to look over the electric line property and outline the changes that would be necessary if and when the Soo Line took over operation of the trackage with its own equipment. Although the track layout in downtown Valley City was poor, it did not seem feasible to make any major changes there because most of the property in the vicinity was either owned privately or by the Northern Pacific Railway. At North Valley City it was originally proposed to lengthen the No. 6 spur track westward to accommodate 30 cars from train No. 31, the westbound wayfreight. However, in January, 1953, the Soo decided to install a crossover in the passing siding west of the depot to form a pocket in which the wayfreight could leave the rest of its train while it switched the downtown yard. Since there were some 20 and 24 degree curves on the electric line, it was not thought advisable to use L engines (2-8-2's) on the wayfreight. Every effort was to be made to keep diesel locomotives on this run.

An agreement regarding track usage and interchange in downtown Valley City was to be reached with the Northern Pacific. Division officials thought that more interchange traffic could be routed through Valley City to the Northern Pacific. Capacities of the two downtown interchange tracks were both 22 cars.

The Northern Pacific was contacted to determine if its spur off the electric line to its water treatment plant would be needed in the future. With dieselization not far in the future, the N. P. decided to take up this track.

A setout merchandise car to receive all freight to Minneapolis, St. Paul and Chicago was proposed to save loading and unloading time for the local. To accommodate an additional car, the loading platform at North Valley City was to



This small stucco building was used by the VCS&I Ry. as a yard office-crew shelter at its downtown yard during the last years of operation of the line. It was built as an office-scale house for the Witham Coal & Wood Company.

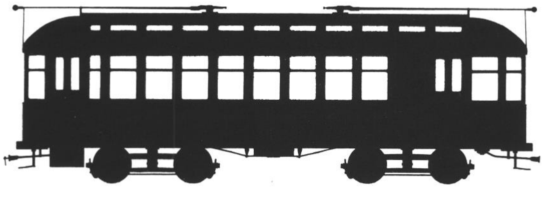
Soo Line photo

be extended 24 feet. Cuts south of the Sheyenne River bridge were to be streamlined to avoid snow trouble. Consideration was to be given to abandoning the entire downtown office and moving all operations to the depot at North Valley City.

SALE OF THE ELECTRIC LINE

On October 1, 1952, J. W. Madsen, Soo Line agent at Valley City and Secretary-Treasurer of the Valley City Street and Interurban Railway Company, wrote to Miss R. M. Briggs, President, regarding the current financial and physical conditions of the company. He reported that 308 ties had been purchased from the Soo Line, but that there was no money to hire labor to put them in. The piling in the bridge was in poor condition and the Soo Line had been asked to survey the necessary repairs and costs. If the Soo Line determined the bridge to be unsafe, it would probably refuse to allow the electric line to use it since the company had no insurance to cover loss incurred because of an unsafe bridge. The county was planning to raise the road along the track north of the bridge and that section of track paralleling the road would then also have to be raised.

On February 23, 1953, Ruth M. Briggs recommended in a letter to the stockholders of the Valley City Street and Interurban Railway Company that the operating portion of the property be sold.



VALLEY CITY STREET AND
INTERURBAN RY. CO.
VALLEY CITY, N. DAK.

Office of the President,
2508 South Main Street,
Rockford, Illinois.

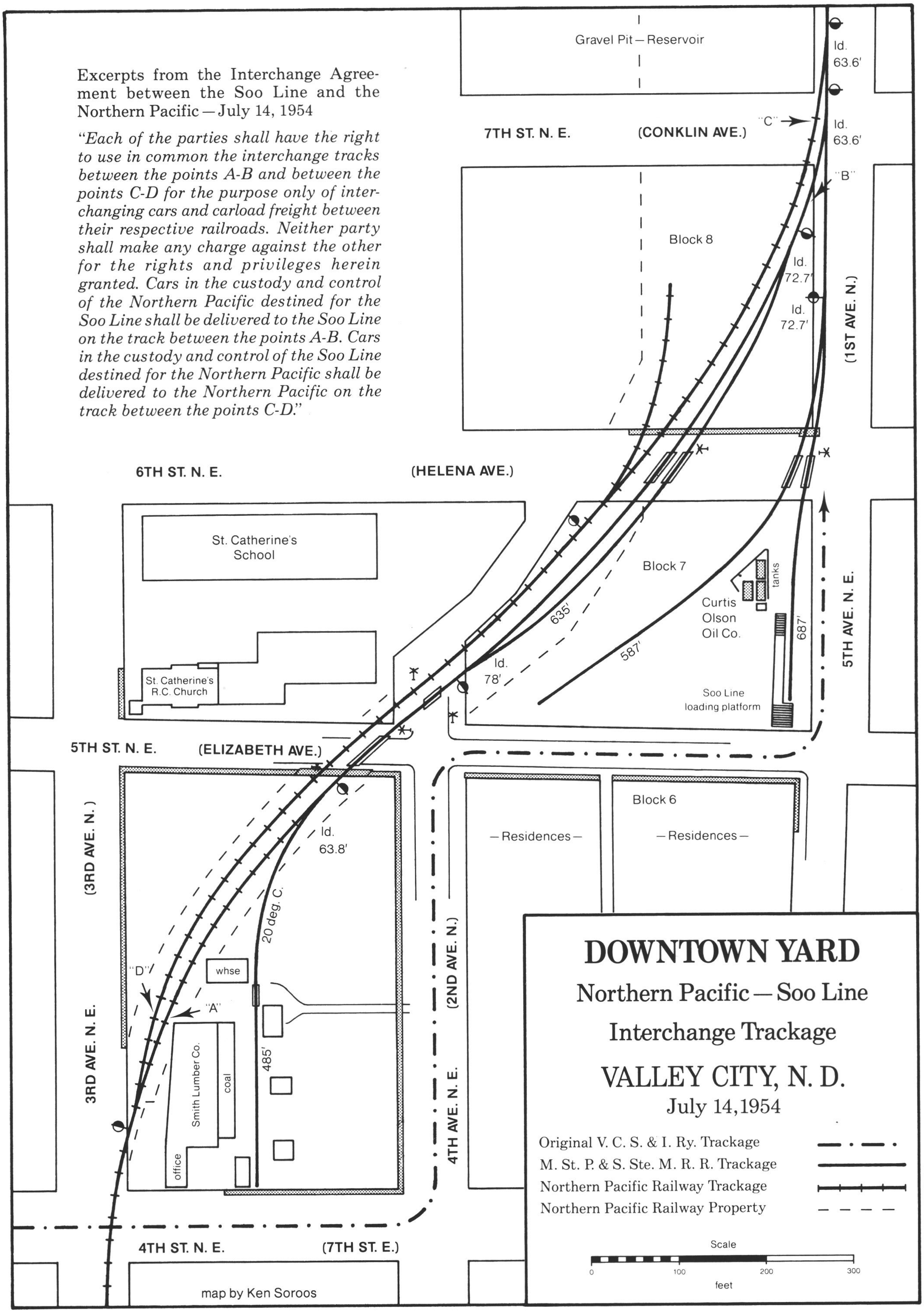
TO THE STOCKHOLDERS:

For some time past, the officers of this Company have viewed with growing concern the problem of continuing our railway operations at Valley City. All of you are, of course, aware of the fact that financial results from such operations have been very unsatisfactory for a number of years, and, as President, I have received numerous inquiries as to whether it might be possible to dispose of the operating property so as to save as much of the stockholders' investment as possible.

Our bridge over the Sheyenne River is in very poor condition and to rebuild it for continued operations will cost from $15,000 to $20,000. The County authorities have notified us that the highway paralleling our tracks will be raised this year, and it will be necessary to raise the tracks to correspond for a considerable distance. The County will furnish the filling material but we will have to provide the ballast and assume the other costs of raising the tracks. The cross ties are in poor condition and many renewals must be made.

Excerpts from the Interchange Agreement between the Soo Line and the Northern Pacific—July 14, 1954

"Each of the parties shall have the right to use in common the interchange tracks between the points A-B and between the points C-D for the purpose only of interchanging cars and carload freight between their respective railroads. Neither party shall make any charge against the other for the rights and privileges herein granted. Cars in the custody and control of the Northern Pacific destined for the Soo Line shall be delivered to the Soo Line on the track between the points A-B. Cars in the custody and control of the Soo Line destined for the Northern Pacific shall be delivered to the Northern Pacific on the track between the points C-D."


Gravel Pit—Reservoir
Id. 63.6'
"C"
Id. 63.6'
7TH ST. N. E.
(CONKLIN AVE.)
"B"
Block 8
Id. 72.7'
Id. 72.7'
(1ST AVE. N.)
6TH ST. N. E.
(HELENA AVE.)
St. Catherine's School
Block 7
tanks
Curtis Olson Oil Co.
635'
587'
687'
5TH AVE. N. E.
St. Catherine's R.C. Church
Id. 78'
Soo Line loading platform
5TH ST. N. E.
(ELIZABETH AVE.)
Block 6
—Residences—
—Residences—
Id. 63.8'
(3RD AVE. N.)
20 deg. C.
(2ND AVE. N.)
whse
"D"
"A"
485'
3RD AVE. N. E.
Smith Lumber Co.
coal
office
4TH AVE. N. E.
4TH ST. N. E.
(7TH ST. E.)
map by Ken Soroos
Scale
0
100
200
300
feet

DOWNTOWN YARD

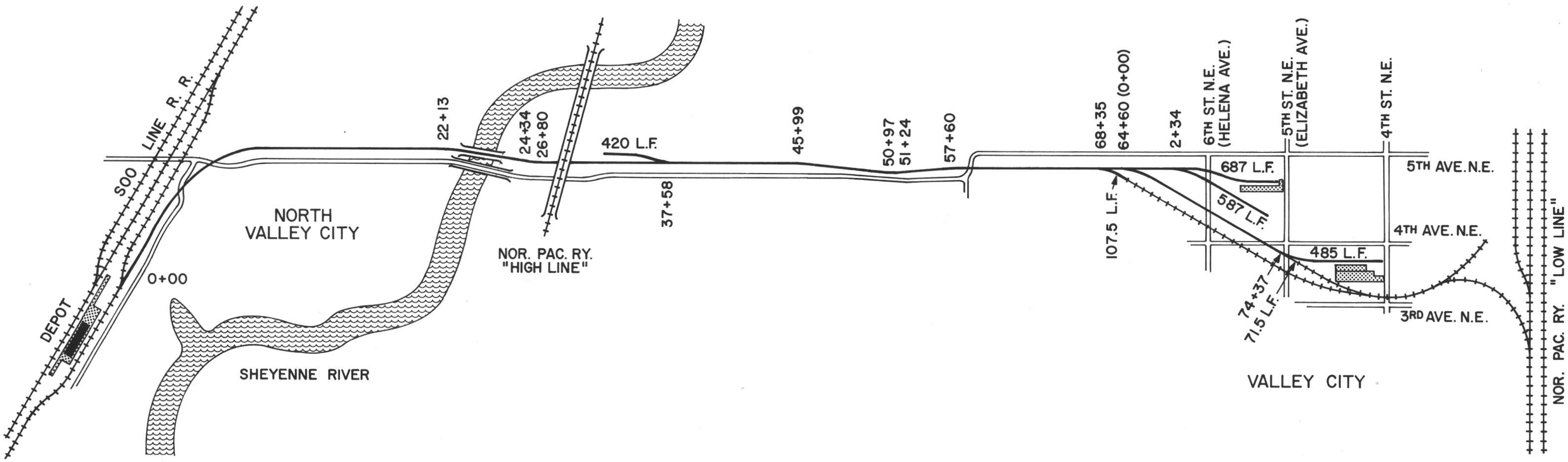
Northern Pacific—Soo Line Interchange Trackage

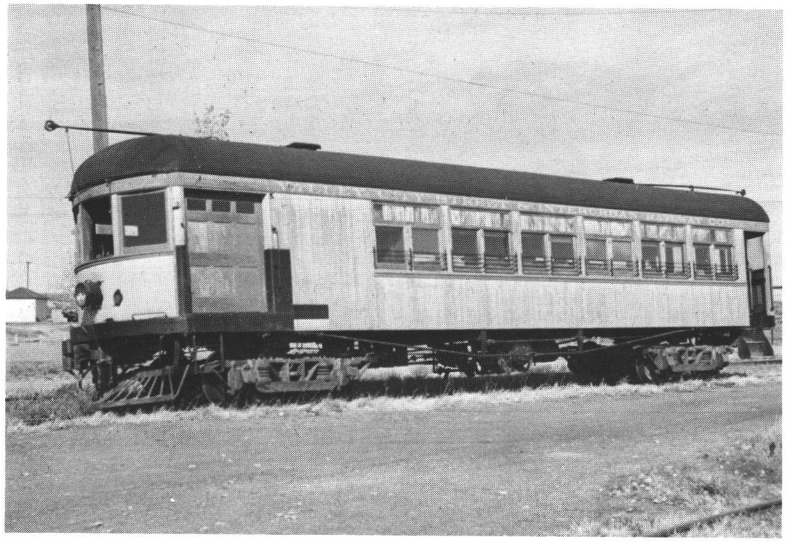
VALLEY CITY, N. D.

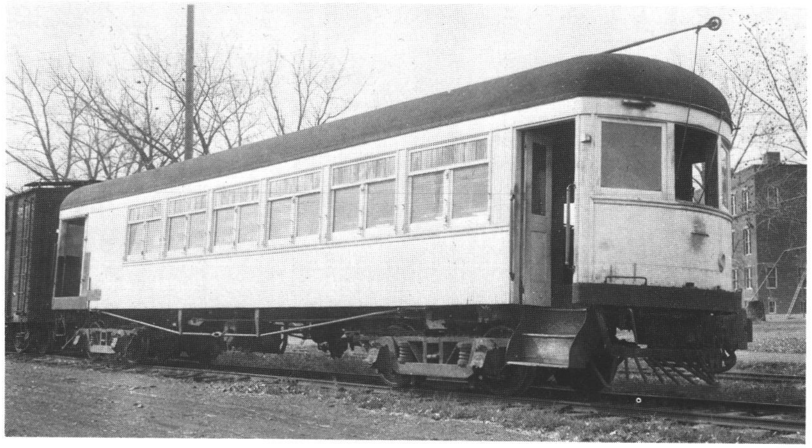
July 14, 1954

Original V. C. S. & I. Ry. Trackage
M. St. P. & S. Ste. M. R. R. Trackage
Northern Pacific Railway Trackage
Northern Pacific Railway Property

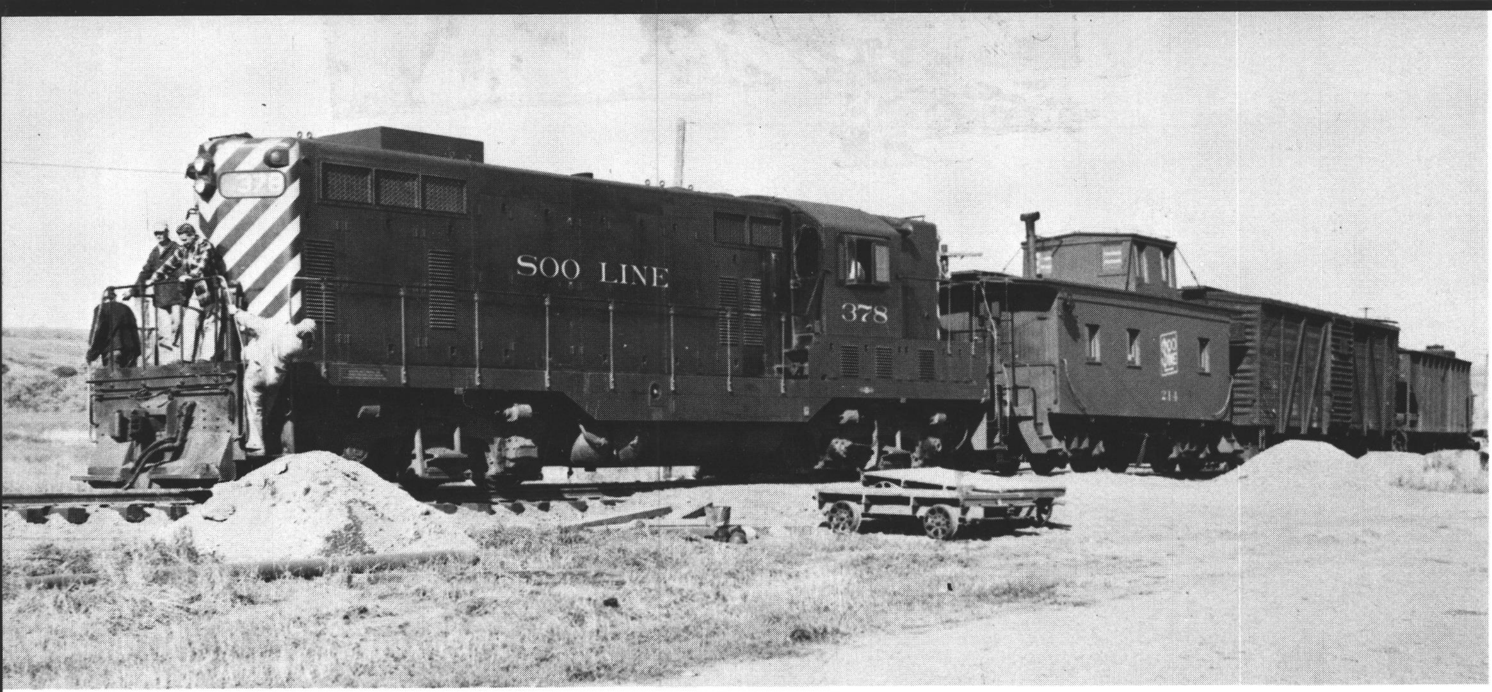
VALLEY CITY STREET & INTERURBAN RY.
VALLEY CITY, NORTH DAKOTA


SOO LINE R.R.
DEPOT
0+00
NORTH VALLEY CITY
SHEYENNE RIVER
22+13
24+34
26+80
NOR. PAC. RY. "HIGH LINE"
420 L.F.
37+58
45+99
50+97
51+24
57+60
68+35
64+60 (0+00)
107.5 L.F.
2+34
6TH ST. N.E. (HELENA AVE.)
5TH ST. N.E. (ELIZABETH AVE.)
4TH ST. N.E.
687 L.F.
587 L.F.
485 L.F.
74+37
71.5 L.F.
5TH AVE. N.E.
4TH AVE. N.E.
3RD AVE. N.E.
VALLEY CITY
NOR. PAC. RY. "LOW LINE"





Two views of Valley City Street & Interurban Ry.'s car built by McGuire-Cummings Mfg. Co. in 1915. (Robert M. Hanft; Joe Hutchinson collection)



With most of the crew riding on its front platform, GP7 No. 378 begins the first trip over former electric line trackage to the downtown yard on September 28, 1953. Here it is shown crossing the county road at North Valley City.
James Welton photo

I have been carefully studying the situation in the interests of the stockholders and have concluded that it would be futile for us to continue operations in the face of the expenditures necessary, especially in view of the probable earnings of the Company. It would seem that the alternative is to dispose of the operating portions of the property and be relieved of these obligations, for which no funds are available.

I believe we should sell all of the property of the Company except the building which is presently rented to the Northern Supply Co., Blume's Bakery and the Soo Line and the land on which it stands. This building will produce some income and make unnecessary the dissolution of the corporation.

The Soo Line has indicated a willingness to pay us about $12,000 for the operating property, equipment, land, easements, franchises, etc., (exclusive of the above mentioned building and land on which it stands) and assume the cost of rehabilitating the property, provided we can convey good title and subject to its ability to get authority from the various public regulatory agencies involved.

While the next annual meeting is on July 1, 1953, according to the by-laws, I believe the matter is urgent enough to require a special meeting of the stockholders, which can be called on 10 days' notice. In order to give everyone adequate time to consider the matter, it is my present intention to call such a special meeting about the middle of March, at which time some definite conclusions must be reached, as the expenditures mentioned above must be made this spring if we are to continue operations.

Yours truly,
Ruth M. Briggs
President

A meeting of the stock holders was held on March 17, 1953. At that time the officers of the VCS&I Ry. Co. were authorized to grant the Soo Line a 90-day option to purchase all its railroad operating property.

A cost estimate of $52,000 for rehabilitation of the electric line for operation of Soo Line diesel power was submitted to Soo officials on April 7, 1953. Major items included rebuilding 2165 of track from the Soo main line to the bridge, relaying the balance of the trackage with 80 pound rail, replacing 3000 ties and constructing a new 220-foot pile and timber bridge over the Sheyenne River.

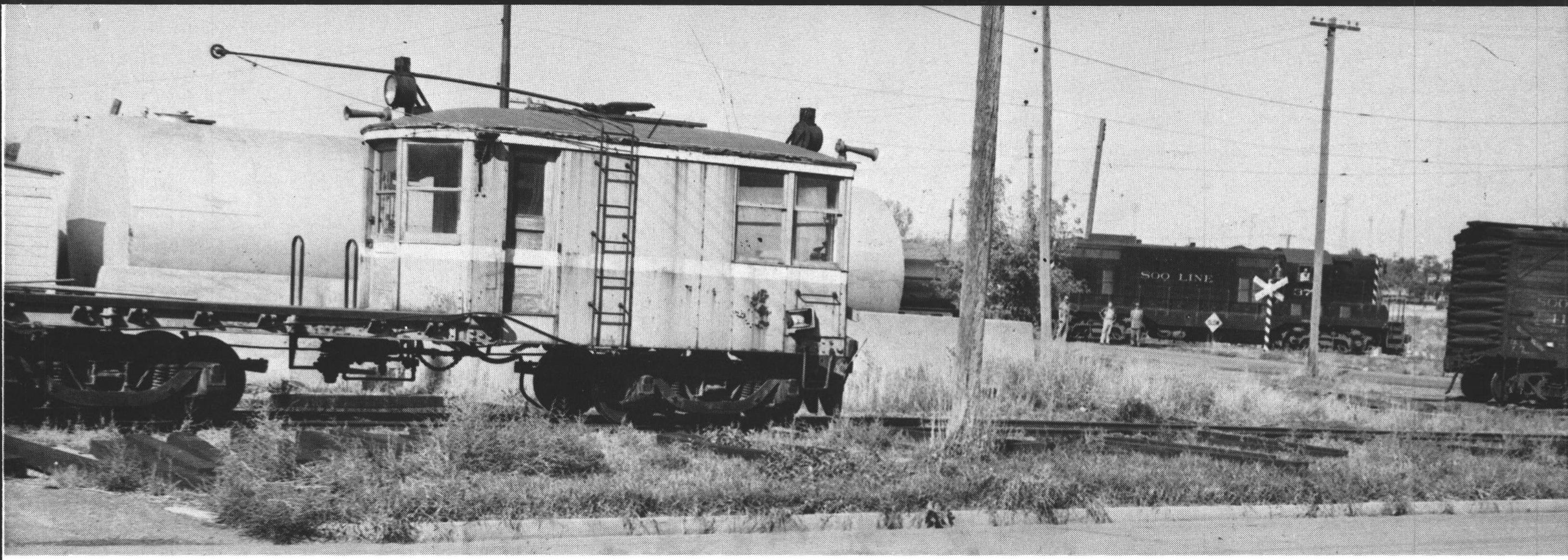
After surveying the line, securing a right-of-way from the county and city and receiving approval from the Interstate Commerce Commission, the Soo Line purchased the Valley City Street and Interurban Railway on June 23, 1953. The Valley City company continued to operate the property for the Soo Line on a cost-plus basis until completion of improvements on the line.

BEGINNING OF OPERATIONS BY THE SOO LINE

Ballasting on the new grade was completed August 25, 1953; and new rail was laid in early September. Ralph Thorson, Assistant Roadmaster, was in charge of the work on the rehabilitation of the line. Notice was given to the VCS&I Ry. Co. on September 14, 1953, that the Soo Line would be ready to take over operation of the trackage between Valley City and North Valley City effective on Monday, September 28, 1953. The last run under wire was made by the VCS&I Ry. on September 23, 1953. Linemen began taking up wire on part of the line the same day. The following day the Soo Line issued Bulletin No. 74:

> *AT VALLEY CITY*
>
> *New industrial trackage and connection with Northern Pacific Railway has been constructed and will be ready for operation on September 28, 1953.*
>
> *Trains will perform work on this trackage when and as directed by Agent.*
>
> *I. L. Fardal*
> *Superintendent*

The first trip over the new trackage was made by GP7 No. 378 on September 28, 1953. Jim Welton, Trainmaster at Enderlin and J. W. Madsen, Agent at Valley City, were on hand to observe. The crew on the way freight included Engineer C. M. Sorlein, Fireman Walter Fritz, Conductor E. E. Olmstad, and Brakemen S. W. Lindeman and V. J. Frederick.



The displaced VCS&I Ry. electric locomotive looks on from the Soo Line team track as its diesel successor arrives at the downtown yard for the first time. In a few months the electric car will be hauled to Enderlin for dismantling by the Soo Line shop crew. *James Welton photo*

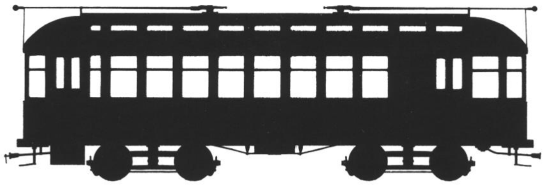
On October 1, 1953, the division engineer proposed elimination of three sections of unnecessary trackage and construction of a new run-around track at the downtown yard. Arrangements were made for the disposition of the electric line's freight locomotive. Moved to Enderlin, it was dismantled in early 1954. On July 14, 1954, an agreement was reached between the Soo Line and the Northern Pacific setting forth the terms and conditions under which traffic would be interchanged at the downtown yard.

CLOSING THE DOWNTOWN FACILITIES

With the pending expiration of its rental agreement for the downtown office and warehouse facilities on April 25, 1956, the Soo Line again considered conducting all its business from the depot at North Valley City. The warehouse was no longer being used for pickup and delivery. The only real advantages of maintaining an office downtown were proximity to the Russell-Miller Milling Company for billing purposes and an identity downtown for public relations purposes. The Soo Line decided to vacate the premises in 1956, but upon recommendation of the traffic department reconsidered and renewed its lease. The Soo even briefly considered purchasing the downtown building from the VCS&I Ry. Co. The lease was renewed subject to termination by either party, at any time after the expiration of the first year upon 90 days' written notice.

In November, 1959, the VCS&I Ry. Co. notified the Valley City agent that it wanted a $25 per month increase in rent for the downtown office building occupied by the Soo Line. This was the first request for an increase since the original contract of 1911 and would bring the monthly rental to $125. The Soo Line agreed to the new rate to be effective December 1, 1959.

In January, 1961, the Soo Line again considered moving its downtown office operation to North Valley City. This time the traffic department concurred. The only concern was expressed by the Valley City agent, who believed there could be a substantial loss of business with the removal of the downtown office. The Soo did retain its office space downtown for two more years. Notice was finally given on August 2, 1963, that the now newly reorganized Soo Line Railroad desired to terminate the lease effective in 90 days. With the closing of its downtown offices, the Soo Line thus brought an end to more than 50 years of relations with the Valley City Street and Interurban Railway Company.



A NOTE ABOUT THE PLANS

Plans for the three cars which appear in this article are drawn from photographs and as much information about the dimensions as was available. None were drawn from original blueprints and therefore may not be completely accurate in their dimensions or details. These were often based upon known dimensions and details of similar cars.

Russell Olson's *The Electric Railways of Minnesota* has several excellent photographs of the last locomotive before it was purchased by the VCS&I Ry. Co. Here the car is shown as built and with the St. Paul Southern (p. 495), with the MA & CR Ry. (p. 484), and with Northern Ordnance Inc. (p. 488). This volume also contains two views of VCS&I Ry. Co. Car No. 2 and a short history of the line with a map on pages 549-552.

John Gjevre's *Sage of the Soo* contains a short history of the VCS&I Ry. on pages 58 and 59. Included here are two photos of GP7 378 making the first run over the reconstructed line after its purchase by the Soo Line.

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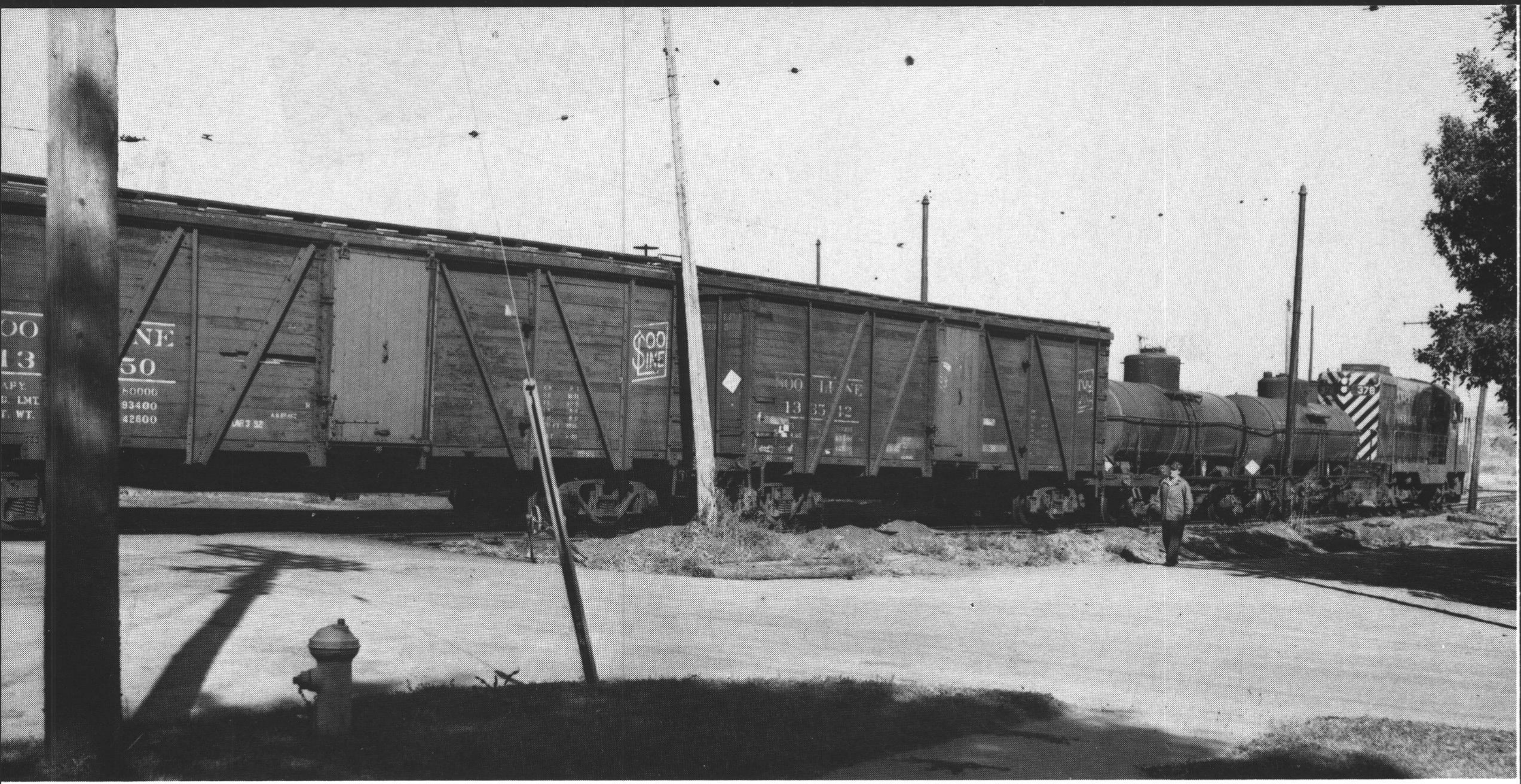

No. 378 is shown switching along 5th Ave. N. E. at the 6th Street crossing on the first day of Soo Line operation to the downtown Valley City yard. Although the uprights and cross wires remain, most of the actual overhead wire has been removed during the past few days. *James Welton photo*

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ACKNOWLEDGEMENTS

Contributions from many people allowed this article to become much more extensive and satisfying to write than I originally anticipated. Their generous and often unexpected assistance, cooperation, information and photographs are greatly appreciated.

Don Mahoney deserves special thanks for providing much of the information regarding relations between the Soo Line and the VCS&I Ry. Co. Don is a former Soo Line dispatcher at Enderlin and railfan who worked the territory during the last years of the electric line's operation. He also arranged for the use of several important photographs included with this article. Warren Edward Miller of the Railway Negative Exchange provided his excellent series of photographs and a summary of his recollections of riding the line. Larry Easton's encouragement, patience and assistance made this first attempt at writing for **the SOO** a rewarding experience.

Several friends and long-time residents of Valley City provided first-hand information about the electric line and its operation.

L. H. Bruhn
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Tom Elliott
Bud English
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Larry Henricks
Earl Kruschwitz
Adolf Soroos

Other information and assistance with the text, maps and drawings were provided by the following individuals and organizations.

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Barnes County Historical Society, Tom Elliott
Kenneth Fletcher collection
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Larry Henricks
Guy Kieckhefer
Don Mahoney collection
Stuart Nelson collection
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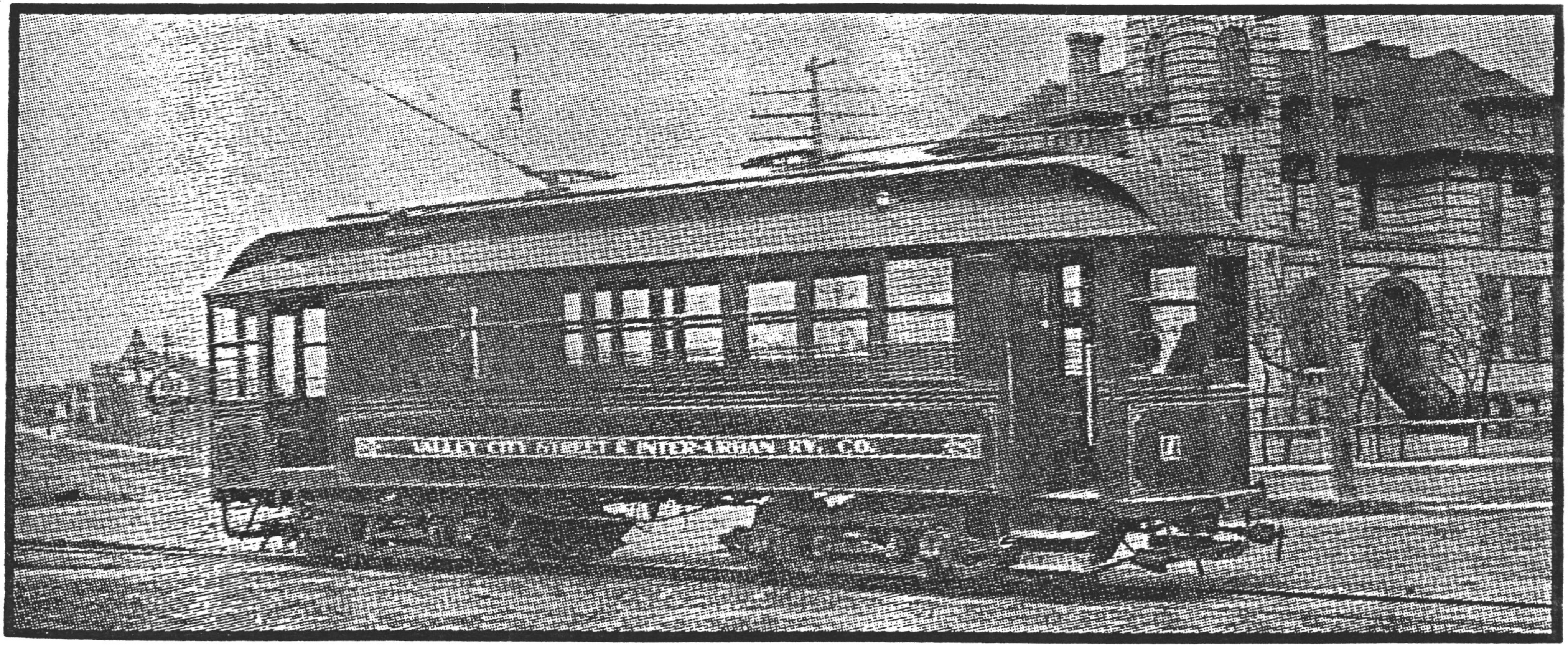
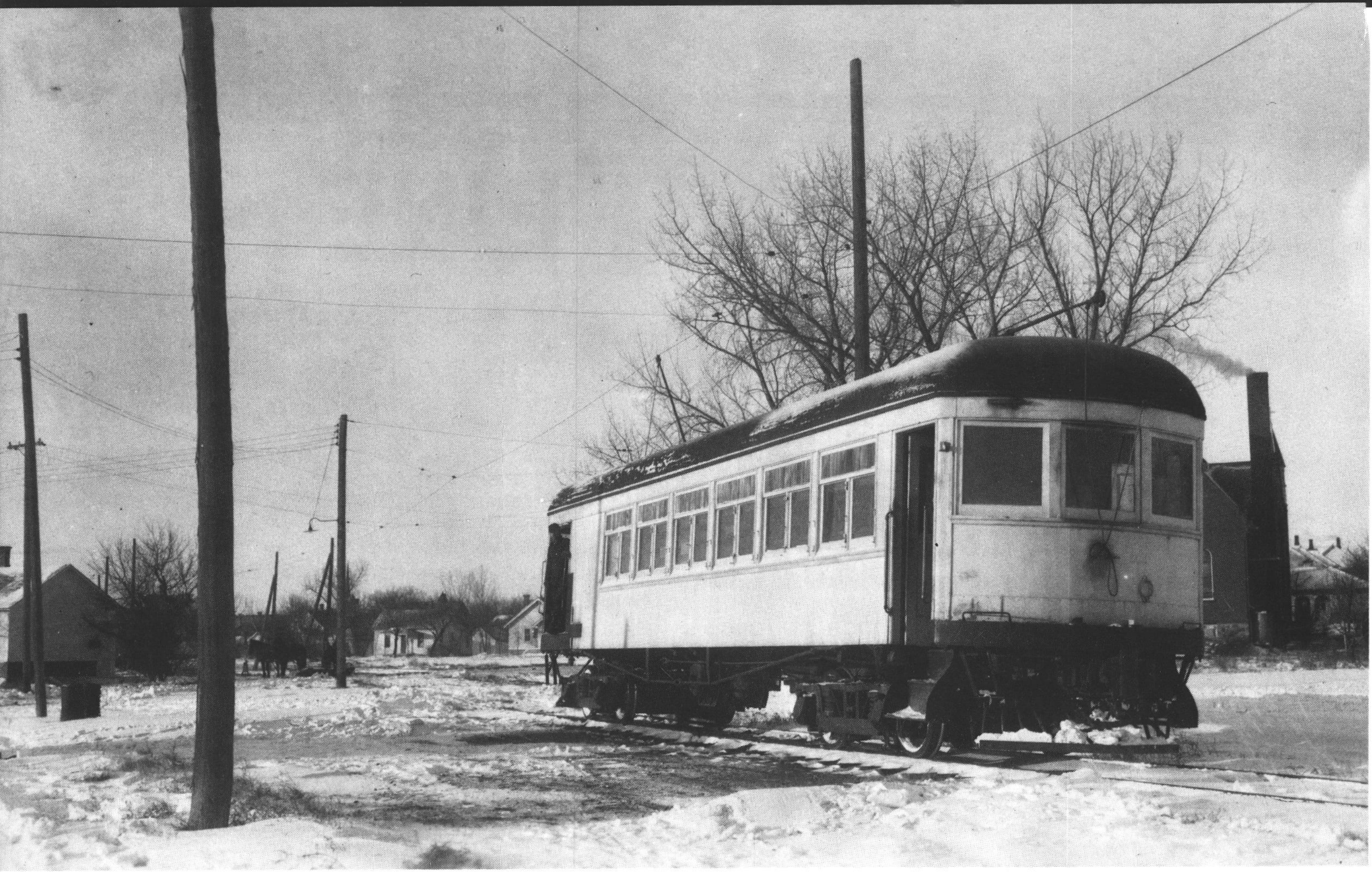
Ed Roach
Soo Line Railroad Company
Jim Welton

Kenneth J. Soroos


VALLEY CITY STREET & INTER-URBAN RY. CO.



#1 The morning sun is just beginning to burn through the overcast sky and it will soon melt the light dusting of snow from the roof of the interurban car. The smoke blowing from the chimney of St. Catherine's Church attests to the cold of the North Dakota winter. *Warren Edward Miller*

RIDING ON THE VALLEY CITY STREET AND INTERURBAN RAILWAY

by WARREN EDWARD MILLER

A week before Christmas in 1945, I was discharged from the Navy at Wold-Chamberlin Air Station in Minneapolis. I left on the midnight Northern Pacific Alaskan, which arrived in Valley City about 7:00 the next morning.

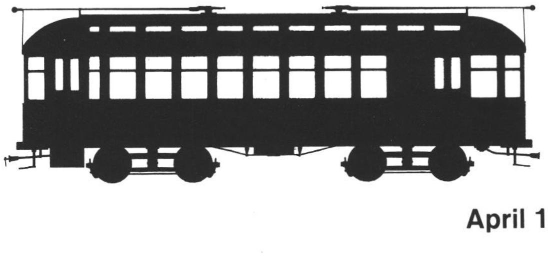
Stepping down from the warm passenger coach, I entered a land of ice and snow. I left my sea bag with the N. P. depot agent, who directed me toward the Valley City Street and Interurban Railway. After slowly walking a few blocks north, I arrived at the small yard where this fine wooden combination car was sitting. The crew began to arrive at the little shelter house and we warmed up by drinking coffee near a hot wood stove. It was from here that I ran out, snapped my first shots, and quickly returned to the warmth of the shelter.

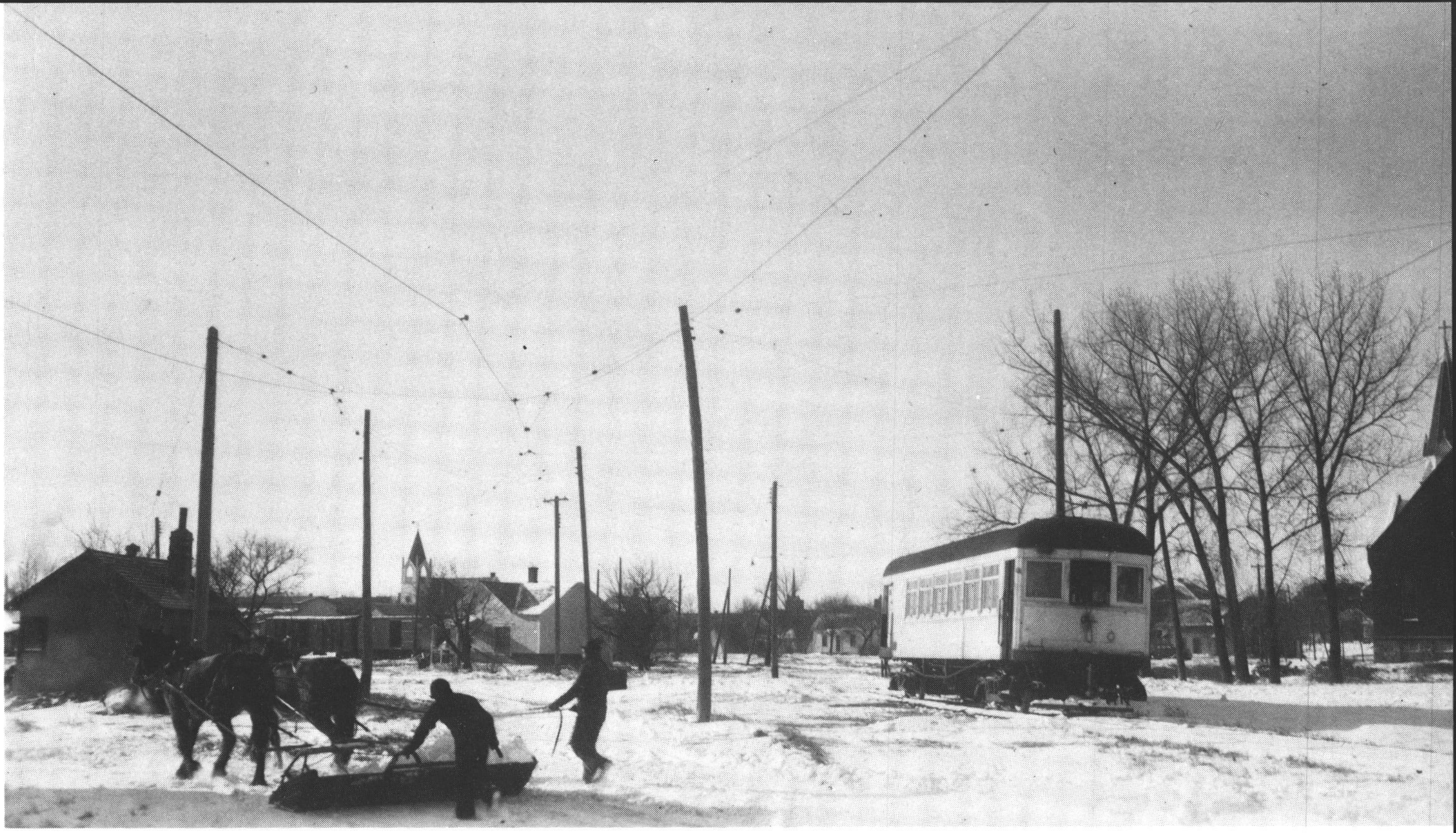
The crew was helpful in explaining to me how the little traction line operated. Its existence was due to the fact that the Soo Line bypassed Valley City. Since the Soo wasn't interested in building a spur into town, the line was constructed with local financing.

The electric car was finally started and the crew did some switching at the lumber company and picked up some cars at the Northern Pacific interchange nearby.

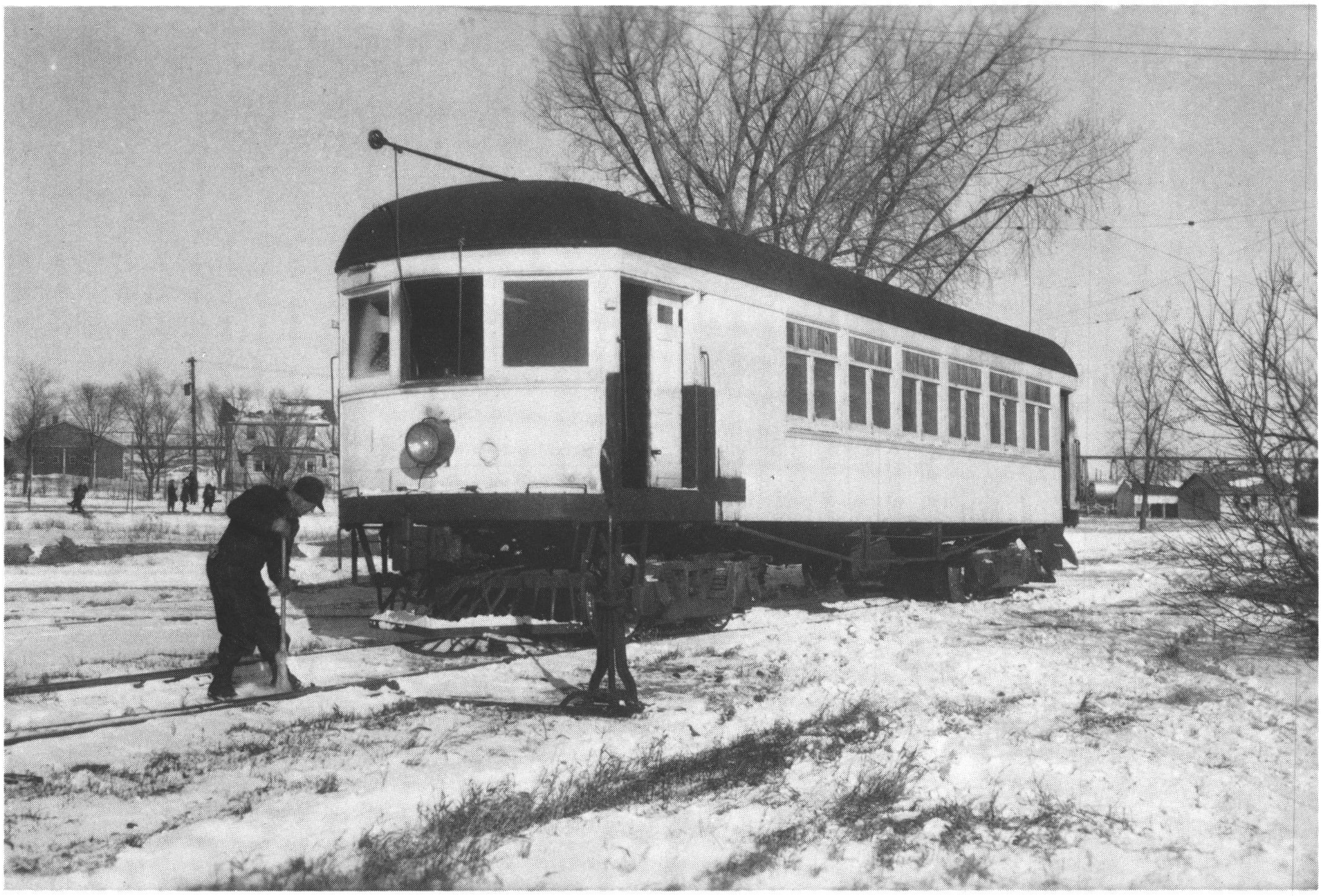
Although the electric line no longer carried passengers, the crew invited me to ride along. After boarding the silver-painted wooden combination car from the glory years of traction, we proceeded slowly northward. Not long after passing under the Northern Pacific trestle, the car came to rest at the beautiful (at least in the eyes of a true rail buff) Soo Line depot. After meeting the Soo Line way freight and doing some switching, we returned to Valley City in the bright afternoon sun with a few new cars. As you can see from the photographs, the snow was almost knee-deep.

I arrived back at the Northern Pacific depot in time to catch the afternoon North Coast Limited to continue my trip home after four years of service with the Navy during World War II. In closing, I cannot express how cold that day felt to a guy who was born and raised in the San Francisco Bay area where we seldom have any snow. Riding this little out-of-the-way line was an experience never to be forgotten.

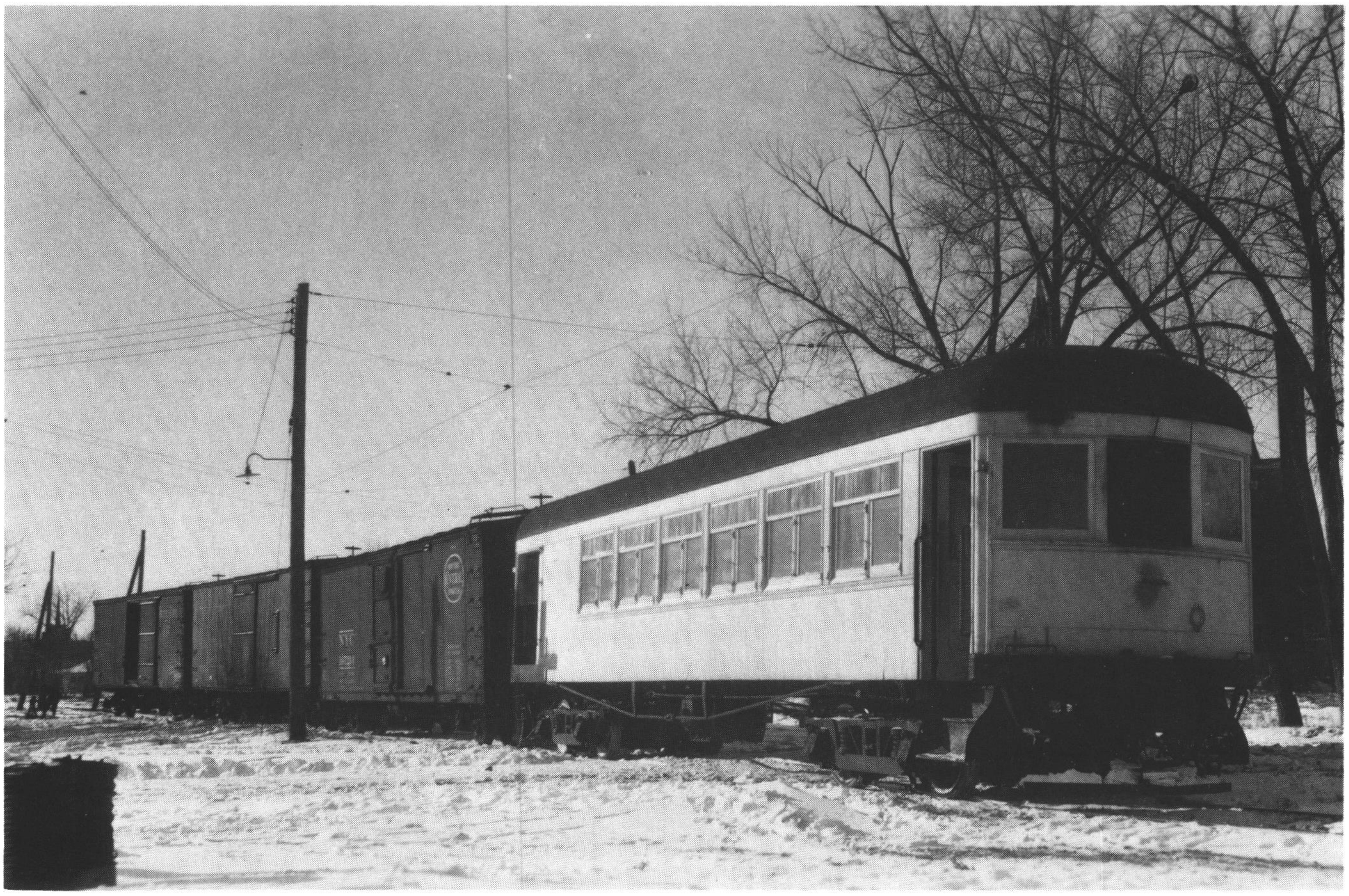




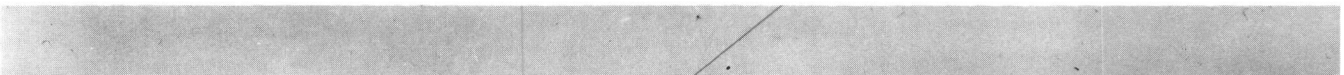
#2 Horses do their best to help remove snow from the streets and track area at the downtown yard. The crew shed is visible on the left and the box cars are on the Soo Line-owned spur track at the Grotte (Smith) Lumber Company.
Warren Edward Miller



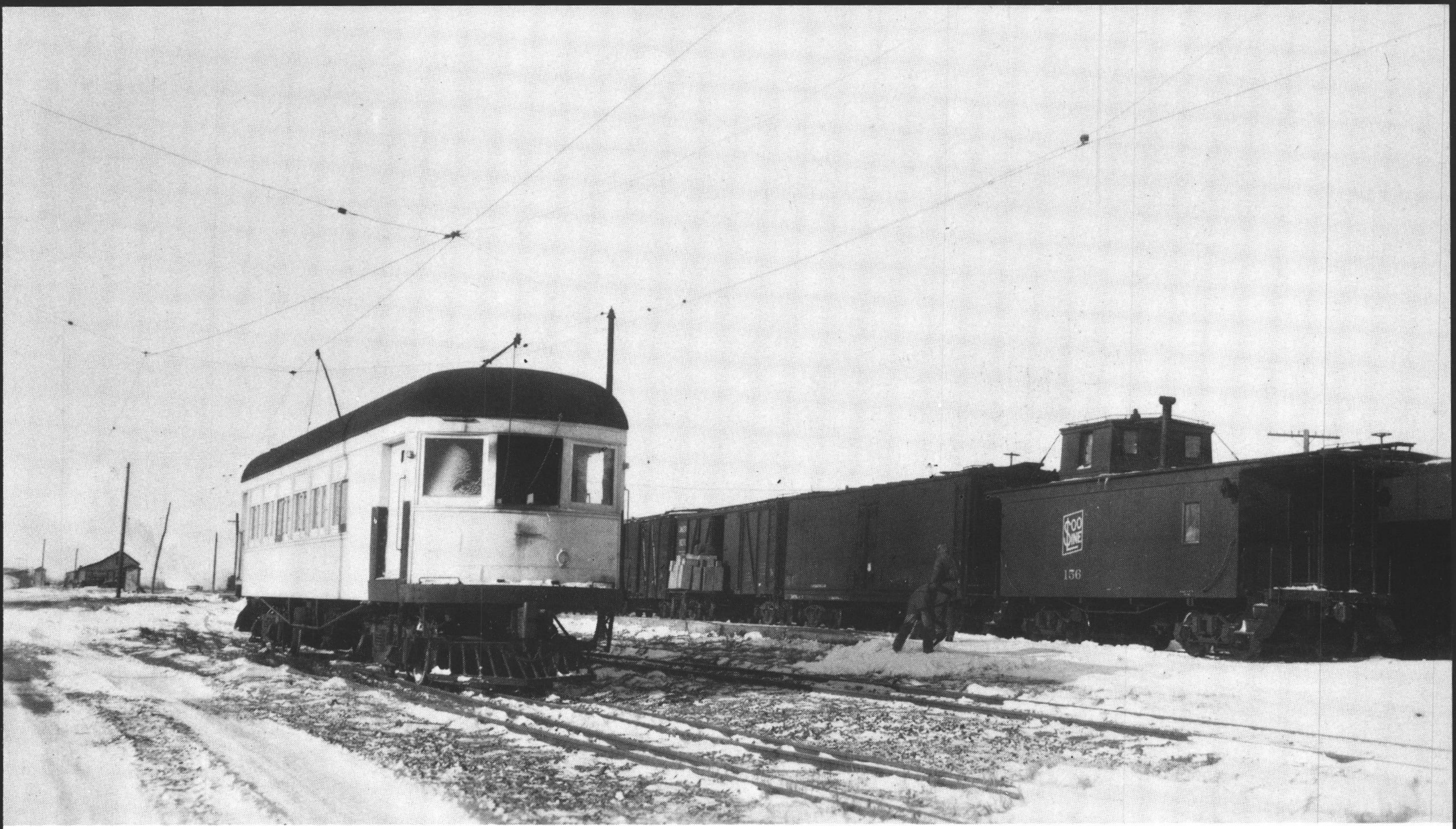
#3 The bright morning sun helps cut the chill as the crew begins to do its switching. Snow must be removed from the points before the car can enter the lumber company spur. Despite the cold, children are busy on the playground at St. Catherine's School.
Warren Edward Miller



#4 An empty car from the lumber yard and two cars from the Northern Pacific interchange nearby will be pulled to the Soo Line depot at North Valley City. The crew will change to the other pole before leaving the downtown yard.
Warren Edward Miller

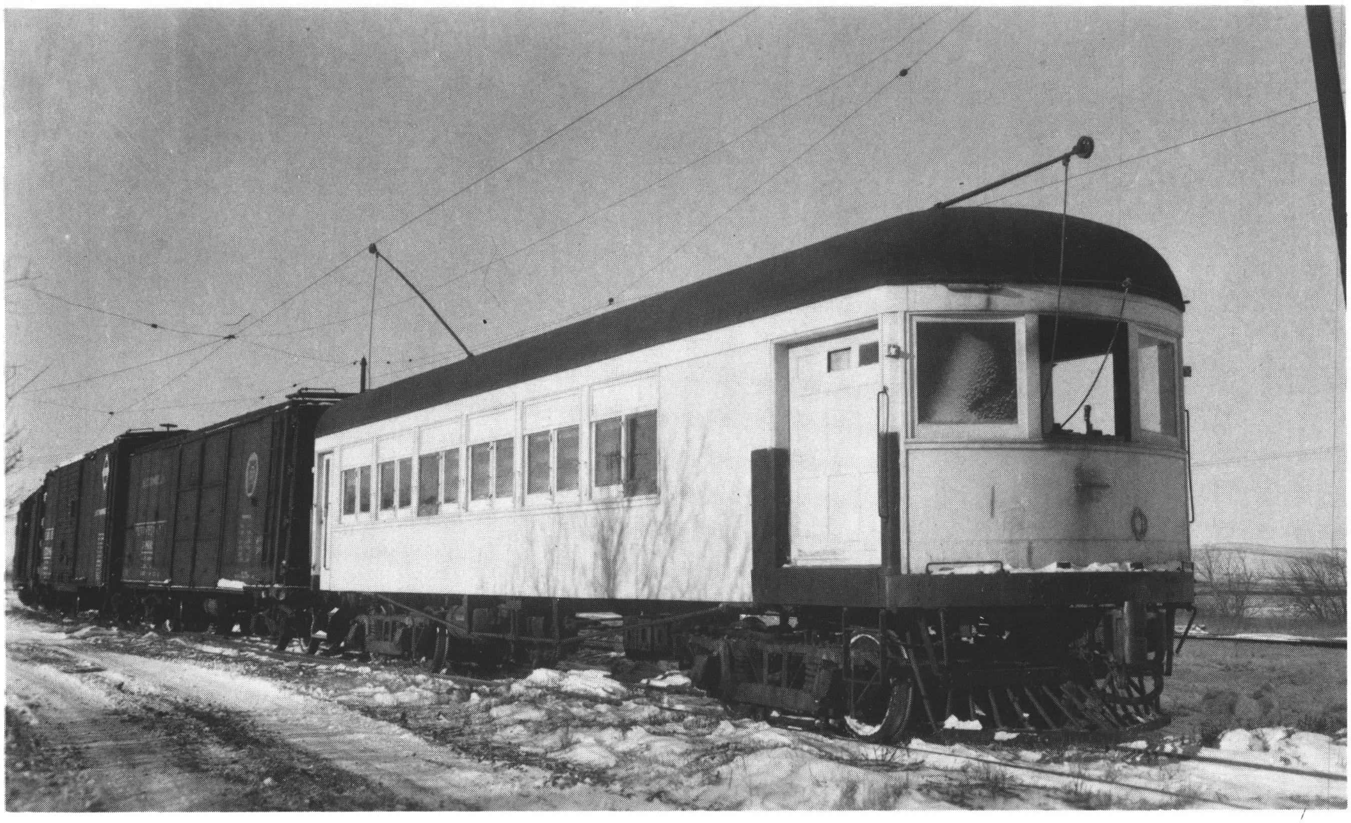


#5 After dropping its cars on the interchange track just east of the Soo Line depot, the interurban car rests at the platform where it has unloaded a cartload of boxes for the way freight to pick up. *Warren Edward Miller*



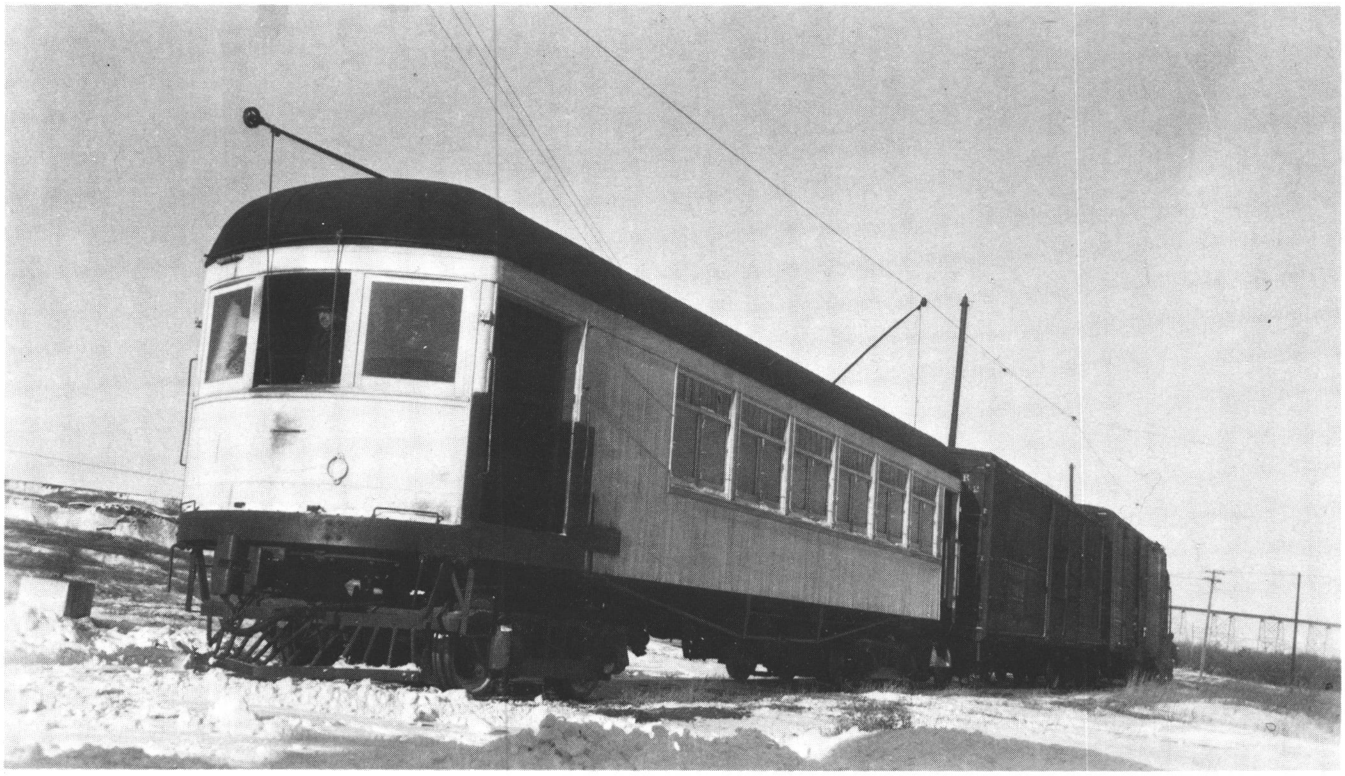
#6 Having changed again to the rear pole, the car waits in the clear. The boxes are being loaded into the lcl car while the way freight drops three cars behind the water tank for the interurban to haul back to Valley City.

Warren Edward Miller



#7 This view shows the car beginning to enter the curve leaving the Soo Line depot grounds to head back south to the downtown yard. Note that the upper parts of the windows on this side of the car have been replaced by wood.

Warren Edward Miller



#8 With the Northern Pacific hi-line viaduct in the background, the train arrives back at the downtown yard. The operator has a clear, but cold, view through the open center windows on both ends of the car. The interurban car will run around its three cars and drop them at the Soo Line loading platform, the lumber company, or the N. P. interchange.
Warren Edward Miller

RAILROADING IN WAUPACA

— A Youthful View

BY JIM KOONTZ

It seems that whenever the subject of railroading comes up in a community, reporters always head for the "old timers" for facts and opinions. I am only 27 years old, but in my short lifetime I have also seen many changes in the local railroading scene. As a child and young adult I've had some railroading experiences which most people only wish for.

GROWING UP ON THE SOO

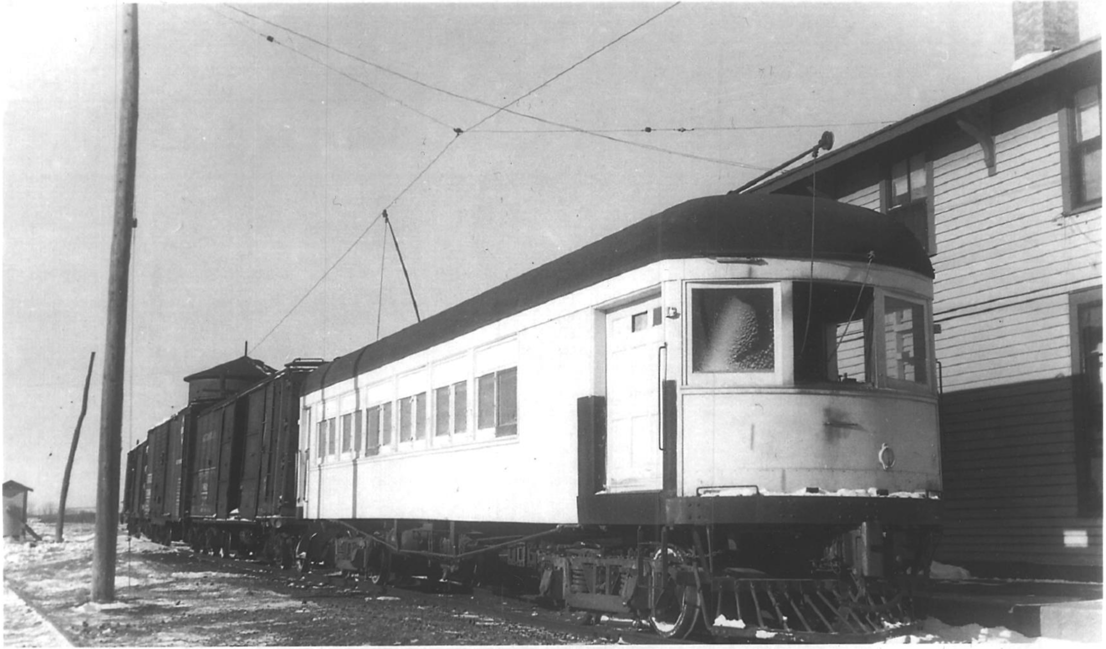
My grandfather was the section foreman in Waupaca for many years. He retired in 1963 after 37 years of service with the Soo Line. I owe to him my love of the railroad in general and the Soo Line in particular.

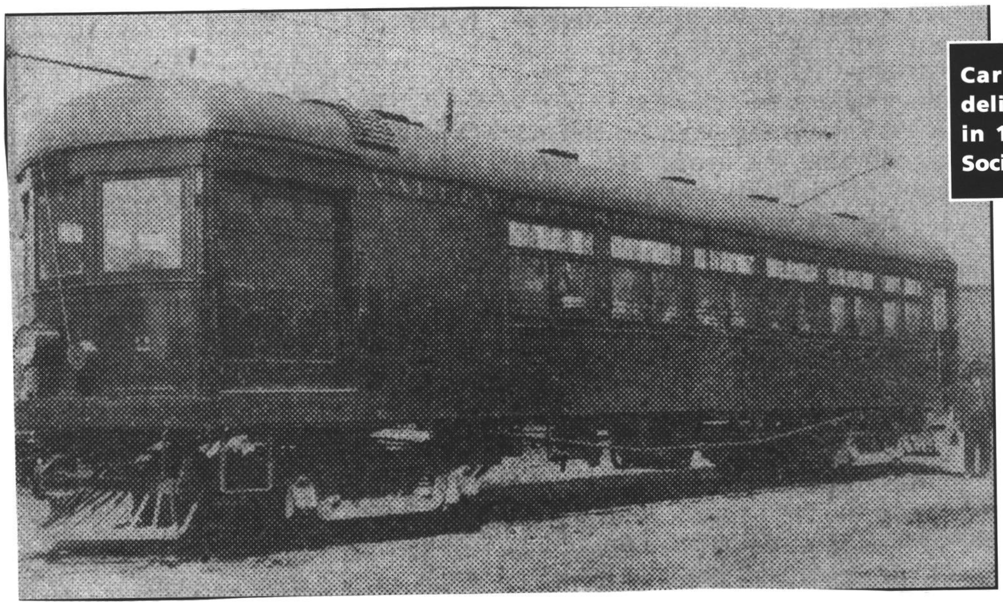
In the summer months when the Soo Line put on "extra gangs," my grandfather would be a foreman on these work crews. When they worked in or near Waupaca I would watch them repair track. Many times I stayed overnight with my grandparents so I could go to work with my grandfather early in the morning. We would get up and have a huge breakfast — toast, eggs, bacon and oatmeal. Then, off we'd go!

Watching the various track machines perform their duties from only a few feet away was a real treat. Sometimes I was able to ride the machines, sitting next to the operator while they were working. That was really living!

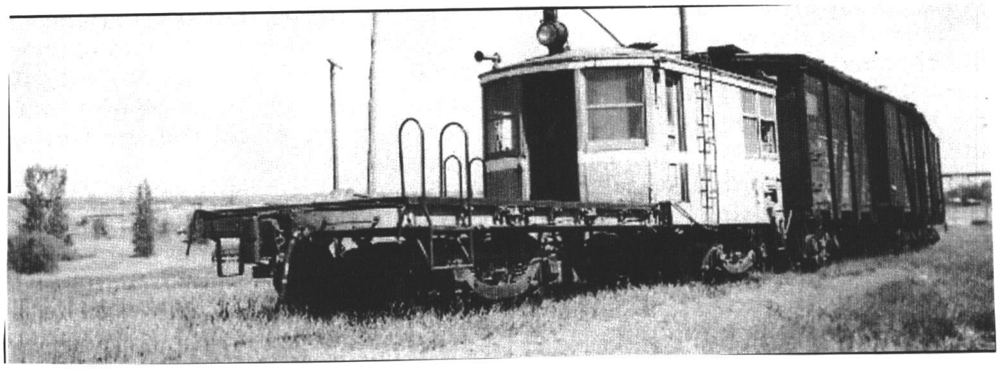
If the work force of a particular crew was big enough and travelled a lot, the railroad provided the crew with bunk, shower and dining cars. At dinner time, we would all wash up and go into the diner. Everyone would stand until grace had been said. Then we would sit down and dig in. Those men really knew how to eat! They had roasts, potatoes, vegetables and bread. There was always a half-gallon jar of peanut butter on the table. To me it looked like a five gallon pail full of the good stuff! The crew went back to work at 1:00. By the end of the day when we came home, I would be just as dirty as any of the workers.

My grandfather, Fred W. Redman, knew an engineer on the Soo Line, Fred H. Redman (no relation). When I was introduced to Fred H., he asked me to come up into the cab of his diesel. I rode around the Waupaca "yards" with him the rest of the afternoon. From then on, whenever Fred H. was in town and I was around the yards watching the crew switch, he would wave for me to come up into the cab and I'd spend the afternoon with him.





Car #2 as it looked when it was delivered from McGuire-Cummings in 1915. Barnes County Historical Society collection.



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were used. This latter speculation is given some support by the fact that from 1873 to the early 1900s, the Inland Steel Company was rolling bar and other steel products from old rails (Iron Age 1910), so a supply of used rails was available in Chicago. As traffic on the VCS&I Ry. was low speed and light weight compared with that on the main lines of major railroads, used rails would have been satisfactory.

The Patriot newspaper article of September 7, 1905, reports that Beeman went on from Chicago to Ohio to purchase cars. There had been correspondence in mid-June between Beeman and the J. A. Hanna Company in Cleveland, Ohio, who manufactured Niles street cars (Soroos 1981) and the purpose of Beeman's trip may have been to make personal inquiries at this company. But the plan to buy a new interurban street car was abandoned and instead a used one was acquired (ibid.). The Times-Record of September 14, 1905, notes that Beeman had purchased one car during his trip, presumably in Michigan or in Chicago, and was negotiating for others. Soroos (1981) cites speculations by Olson (1976) and James J. Buckley (personal commmunication to Soroos 1981) that car No. 1 and two open trailers on the VCS&I Ry. were bought used from the North Shore Line in Michigan. Lending credence to this suggestion, the Times-Record of December 21, 1905, states, "... before its [the interurban car] purchase by the local company [it] was used for a few months on an interurban line in Michigan." The North Shore Interurban car is described as being built by the Pullman Co., was 36' 11" in length, and seated 28 people (Soroos 1981). However, a contemporary account describes the first VCS&I Ry. streetcar as, "a 38-foot combination Pullman which will seat 35 to 40 people. One end is partitioned off and arranged for handling baggage and express" (Times-Record 9-28-05; see also photograph in Soroos 1981:10). The difference in size and carrying capacity suggests that car No. 1 may not in fact have come from the North Shore Line. In addition to the street car, the VCS&I also started with two open trailers (Soroos 1981) and these may be the other cars for which Beeman was negotiating.

The street car arrived by flat car on the Soo Line in late September 1905, along with poles, ties, and rails (Patriot 9-28-05; Times-Record 9-28-05). By this time the grading for the track was nearly completed. The expertise required to actually set the rails was supplied by an unnamed superintendent (Times-Record 9-28-05), the only out-of-town specialist known to have assisted on the project. By October 12th, rail had been laid from the Soo depot to the railway bridge across the Sheyenne River. The pilings were in place for the bridge, but it was not yet completed (Patriot 10-12-05). The tracks reached the north city limits by October 26th (Times-Record 10-26-05) and, after a short delay, because 75 tons of rails had not arrived on schedual, by November 9th rails were laid down 5th Avenue to the terminus at the Northern Pacific depot (Patriot 11-9-05).

After the track was completed, work began in late November on stringing the overhead electric wires for the street car. This

Patriot
September 28, 1905

O. A. Beeman's motor and car for his street railway arrived on Monday and is on a flat car at the Soo depot in North Valley City. The ties and poles have also arrived and the rails also. The grade is almost completed and track laying will soon be commenced.

Times=Record
September 28, 1905

THE STREET RAILWAY.

Street railway affairs have arrived at the point where the progress which has been made will soon be distinctly visible to the public. Three carloads of iron have been purchased and one of the cars arrived this week and are now being unloaded over at the Soo. The car is a 38-foot combination Pullman which will seat about thirty-five to forty people. One end is partitioned off and arranged for handling baggage and express. The work of laying the rails will begin as soon as the man who is to superintend the job arrives.

The contract will be let this week for a two story and basement brick building, 50x100 feet in size, which will be used as a depot and power house. It is to be located on the corner lot south of the library building. Cars can be run from Fifth street directly into this building which will be a convenience in handling freight. The engine and dynamo will be placed in the basement.

Patriot
September 28, 1905

O. A. Beeman has changed his plans and has commenced the erection of his street railway depot and power station on the southeast corner of Fifth avenue and Fifth street, opposite the public library. The building will be a two story structure 50 x 100 feet.

Patriot
October 12, 1905

The track for the street railway has been laid between the Soo depot and the bridge, and a force of workmen are putting in the foundation for the power station. The poles are also in for the bridge across the river. Verily, he is a busy Bee-man.

Times=Record
October 26, 1905

ELECTRIC RAILWAY PROGRESS.

Work is being pushed on the power house for the street railway and Mr. Beeman hopes to have it inclosed before the end of the month. The foundation is all in and work has been commenced on the brick superstructure. The dynamo, engine and 125 horse power boiler have been received and are being placed on their foundations. The work of laying the rails is in progress and has been completed as far as the city limits. This work is temporarily at a standstill, however, because of the non-arrival of a shipment of seventy-five tons of rails which is on the road somewhere between here and Chicago. When these rails arrive track laying will commence again and Mr. Beeman hopes to get this part of the work completed before it freezes.

Patriot
November 2, 1905

The building for the electric railway power station is progressing nicely, and if good weather prevails ten days from now it will be ready for the roof. The boiler, engine and dynamo are set in.

Valley City "Aliance"
December 14, 1905

That Street Car Line.

The electric railroad between here and North Valley City made its initial trip Monday afternoon under the auspices of the W. R. C. Tickets cost 35 cents with a splendid dinner on the side, so that the ride was practically free. We had the pleasure of riding over on the first car with O. A. Beeman at the "throttle" and Ed. Briggs as ticket puncher—and the trip was made in short order.

John Moore, who was with Mr. Beeman in the telephone exchange for a number of years, is the regular motorman and a better man for the place could not be found. As in the telephone business, he pays strict attention to every detail of the business and his services will be missed by Manager Cox.

With a combination like Moore for motorman and Briggs for conductor, the company is pretty apt to do a big business.

Times=Record
December 21, 1905

STREET RAILWAY BEGINS BUSINESS.

Without frills or dedicatory exercises of any kind the Valley City street railway commenced doing business Monday. The use of the road had been kindly tendered by Manager Beeman to the ladies of the W. R. C. and under their supervision quite a number of people took advantage of the occasion to make the trip to North Valley City and return.

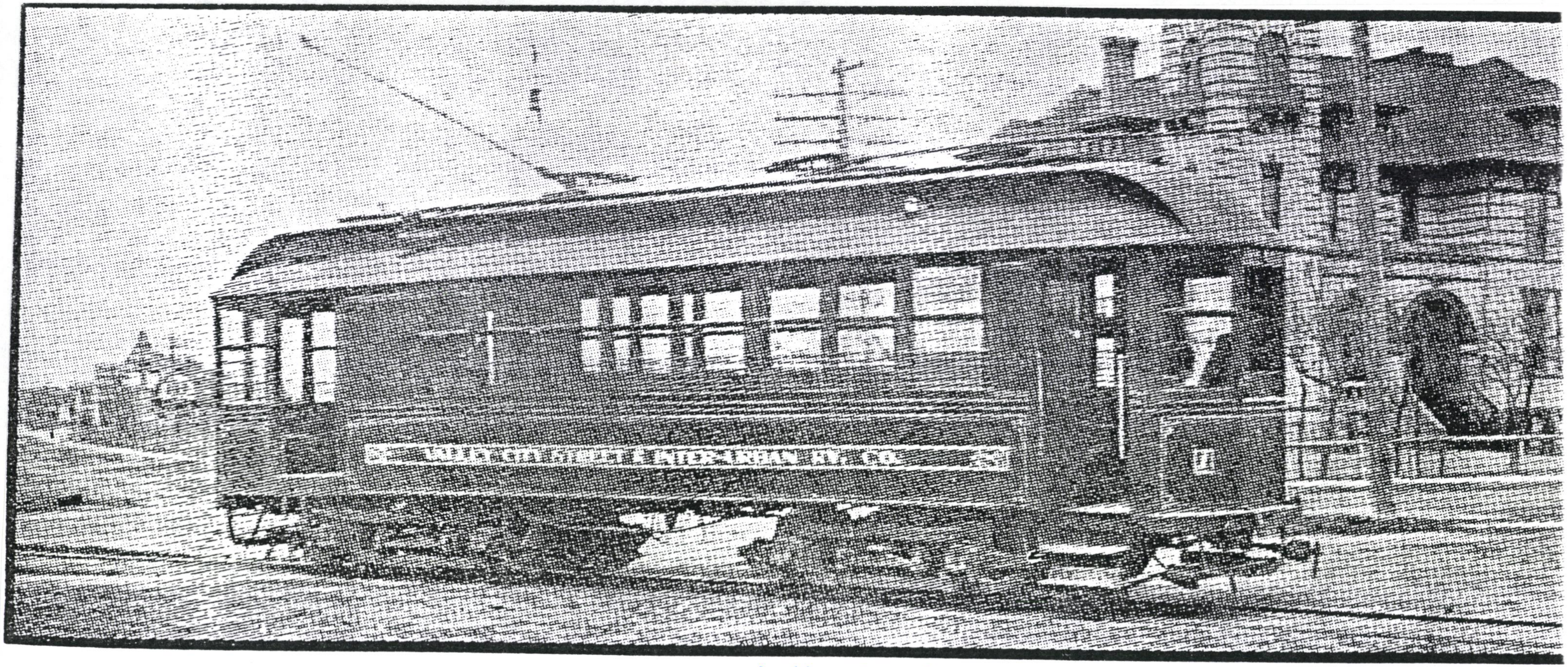
The railway is intended to take care of the passenger and freight business brought to the city by the Soo railway, which has its station about a mile and a half from the business portion of Valley City. The street railway's car will meet all Soo passenger trains and the line will also handle all the freight and express coming in or going out over that road. For the present, at least, there will be but little transportation of passengers within the limits of the city only and the greater portion of its business will be the "through traffic" to the Soo. As the city grows the line will undoubtedly be extended to cover the business and residential sections, but for some years to come its down town terminal will undoubtedly be opposite the Northern Pacific depot.

The railway is about two miles in length, running from the Soo depot to the Northern Pacific depot. The curves will permit of bringing an ordinary box car to the depot, but for the benefit of those who fear that the Soo will be sending engines over the road it may be stated that they are too acute for this and that such engines as are now in use could not make the trip.

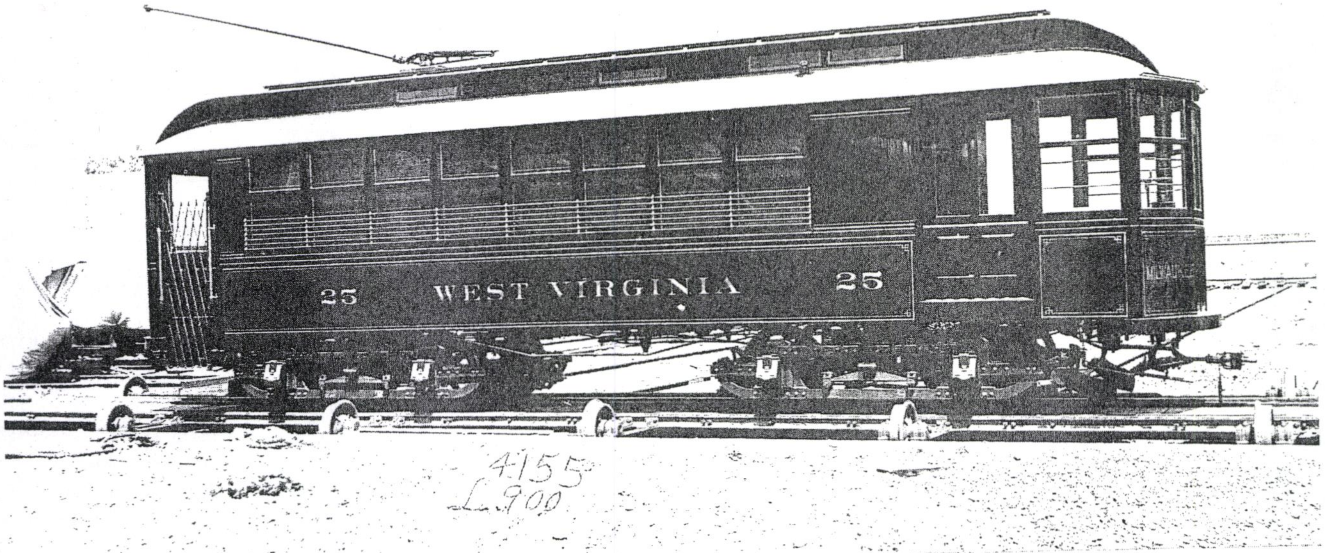
At the present time there is but one passenger coach. This car is considerably larger than the ordinary street car, and before its purchase by the local company was used for a few months on an interurban line in Michigan. It is thirty-eight feet in length and has seating capacity for about forty passengers. There is also an inclosed space at one end for baggage and express. The seats are reversable, with cane backs and cushions. The car is lighted by electricity and comfortably heated. It has already been demonstrated that there will be times when it will not be large enough to handle the business and the company expects to purchase one or two trailers.

The power house is a substantial brick structure conveniently located two blocks north of the Northern Pacific depot on Fifth avenue. There is a spur track leading into the house and it will be possible to load and unload freight under cover. The Soo city office will probably be installed in this building as soon as it is completed. Power is furnished by a boiler and engine of 100 horse power and an eighty kilowatt dynamo. The engine room is in charge of Frank Kaiser, a competent engineer. For the present John Moore will probably act as motorman and Ed Briggs as conductor.

The street railway will undoubtedly prove to be a great convenience to the public and its completion marks another step in the growth and development of Valley City. The road has been built entirely by local capital and men like Messrs. Beeman, Briggs, Brown and their associates who have the enterprise to make an investment of this kind deserve the hearty support and good will of citizens generally. The Times-Record hopes that the Valley City Street and Interurban Railway company may grow and prosper.


VALLEY CITY STREET & INTER-URBAN RY. CO.

Peckham #15 Trucks



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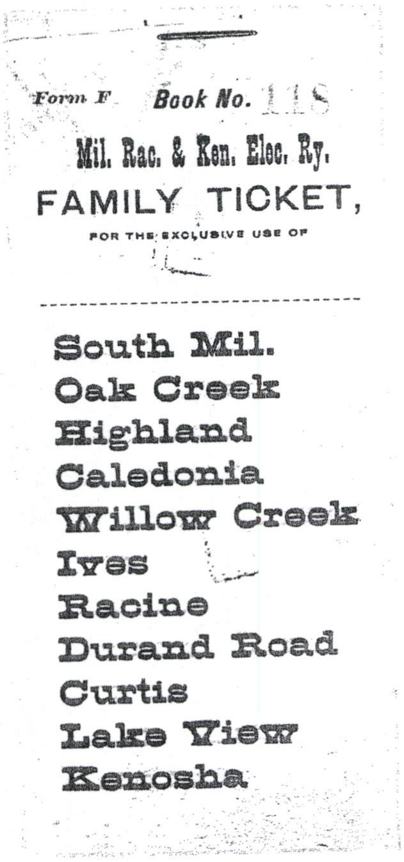
ABOVE: MR&K Electric Railway 25, the *West Virginia.* **BELOW:** Builder's photo at Pullman plant interior, showing coal stove to ward off winter winds which blew in off Lake Michigan. —Both, **George Krambles.** **LEFT:** Cover of MR&K commutation ticket showing list of zone points; also individual ticket. —**I. C. Scroggins.**



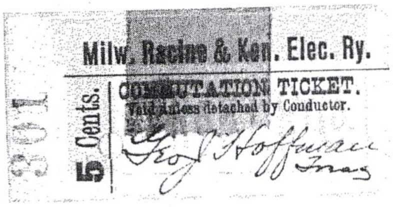
Form F **Book No.** 118

Mil. Rac. & Ken. Elec. Ry.

FAMILY TICKET,

FOR THE EXCLUSIVE USE OF

South Mil.
Oak Creek
Highland
Caledonia
Willow Creek
Ives
Racine
Durand Road
Curtis
Lake View
Kenosha



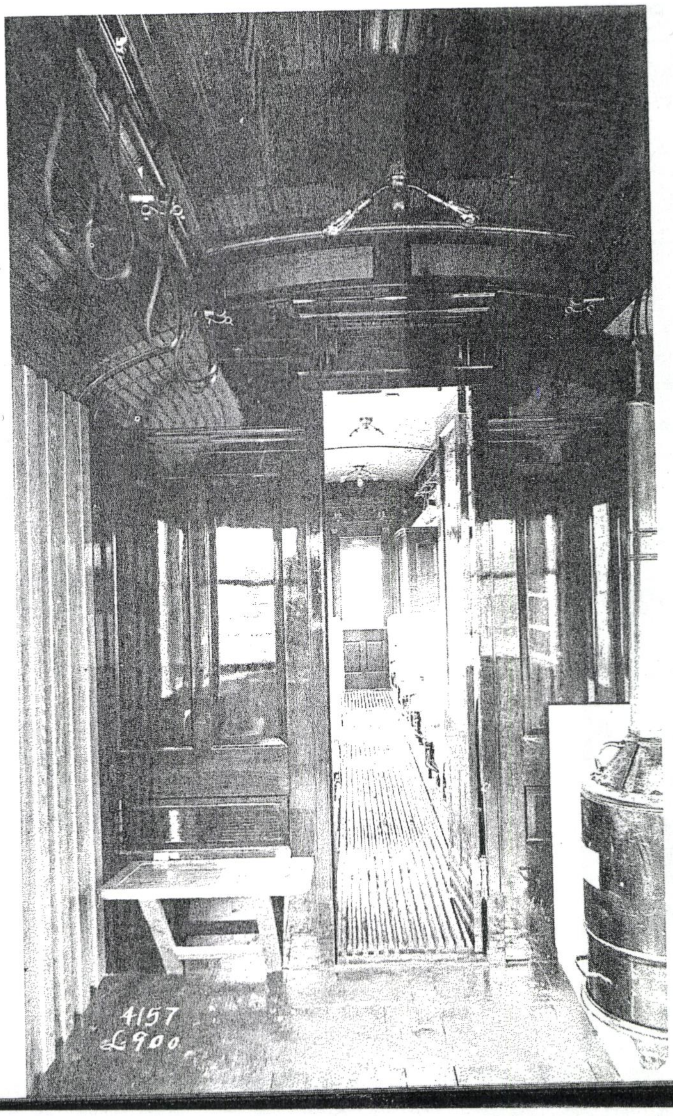
301

Milw. Racine & Ken. Elec. Ry.

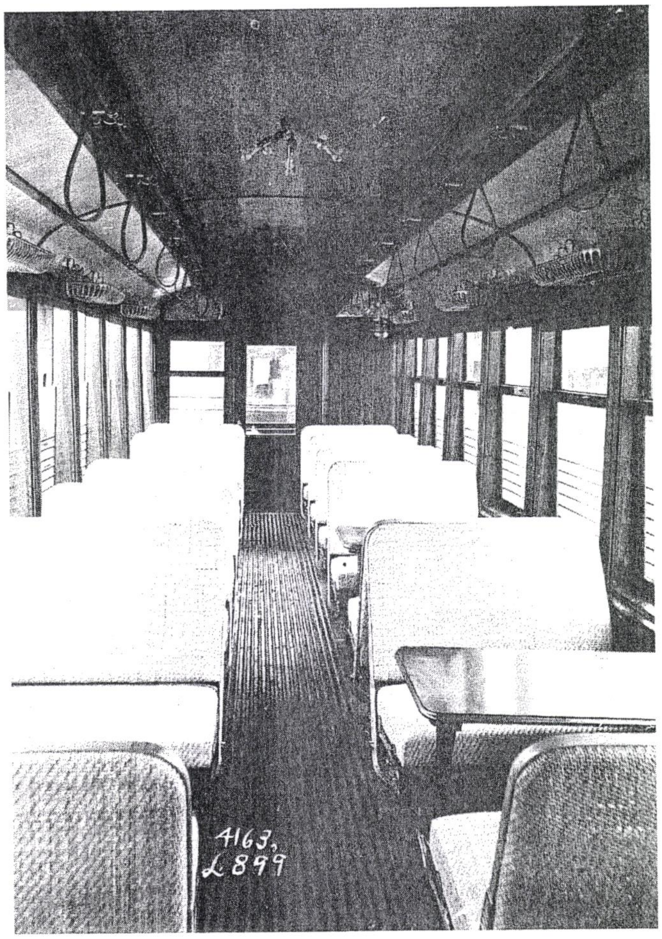
5 Cents.

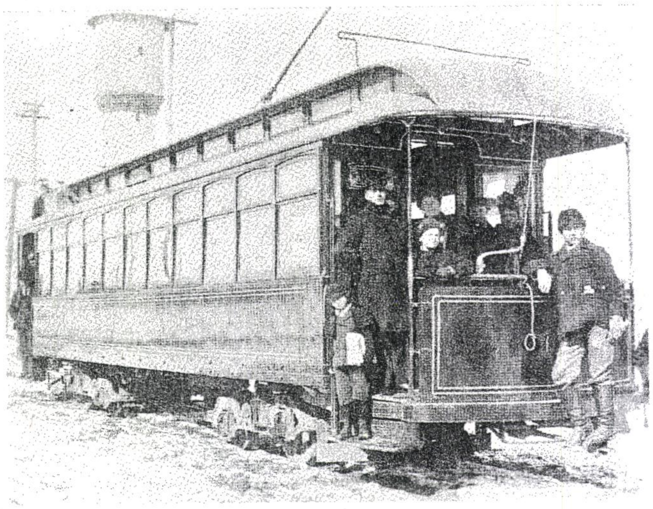
COMMUTATION TICKET.
Void unless detached by Conductor.

Geo J Hoffman
Treas

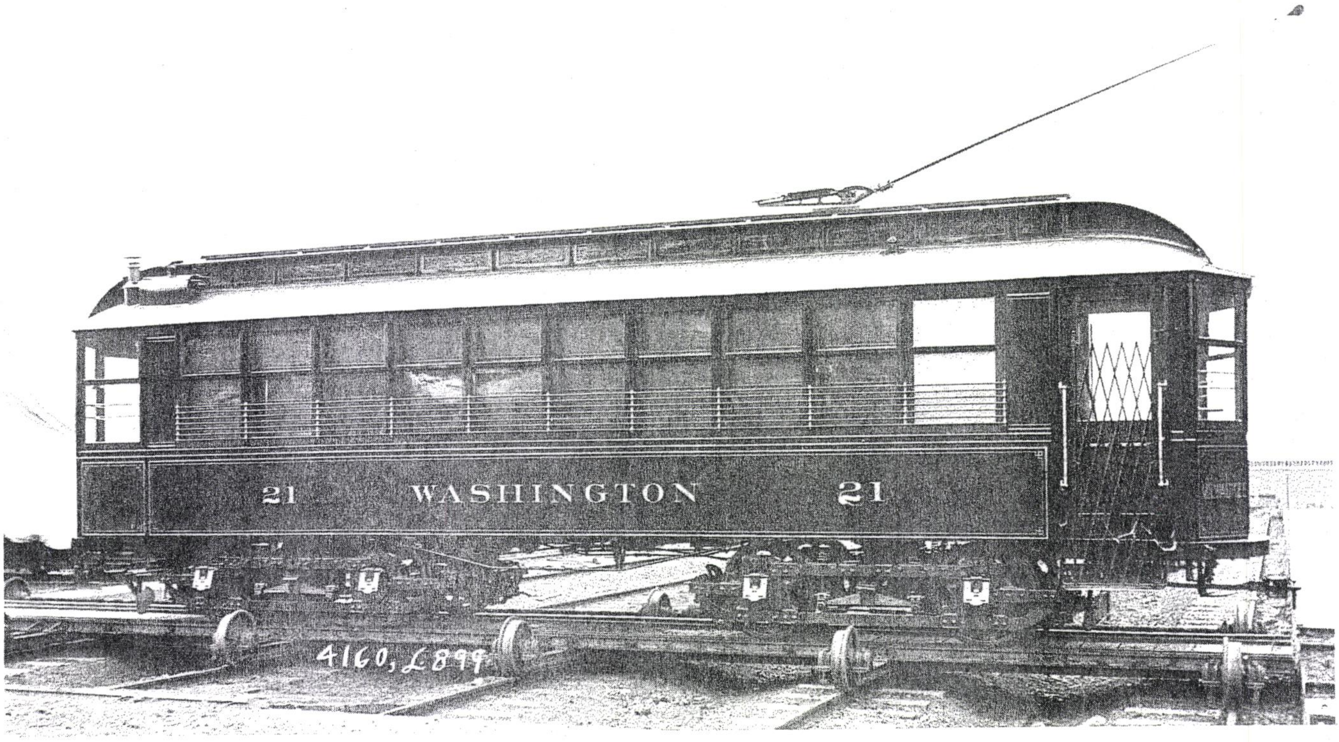


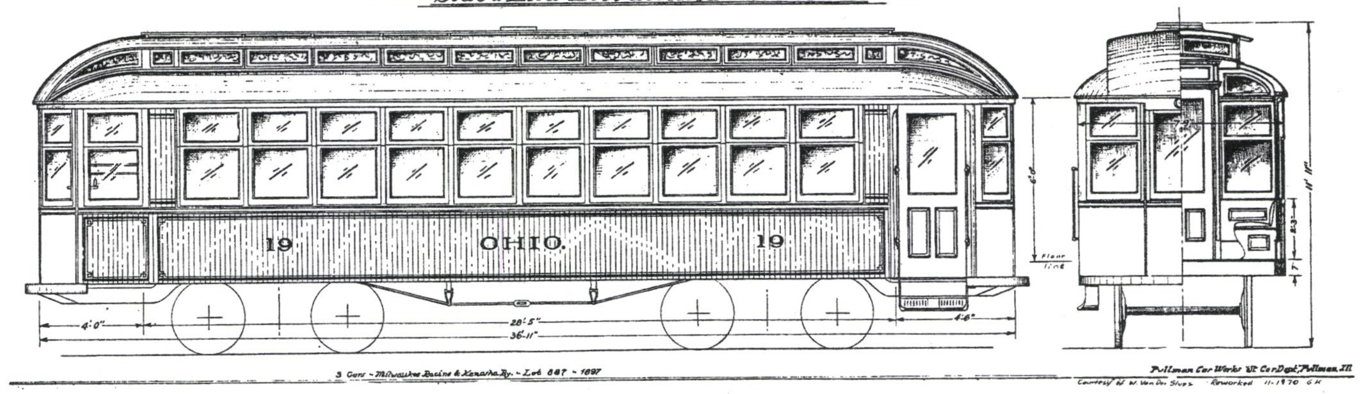
4157
L900





LEFT, BELOW: MR&K 21, the *Washington*, at Pullman. Note rattan seats and table for conductor or card players. **ABOVE:** Detroit-type open back platform on unidentified MR&K car. —**Larry Repp collection.**


21 WASHINGTON 21
4160, L899



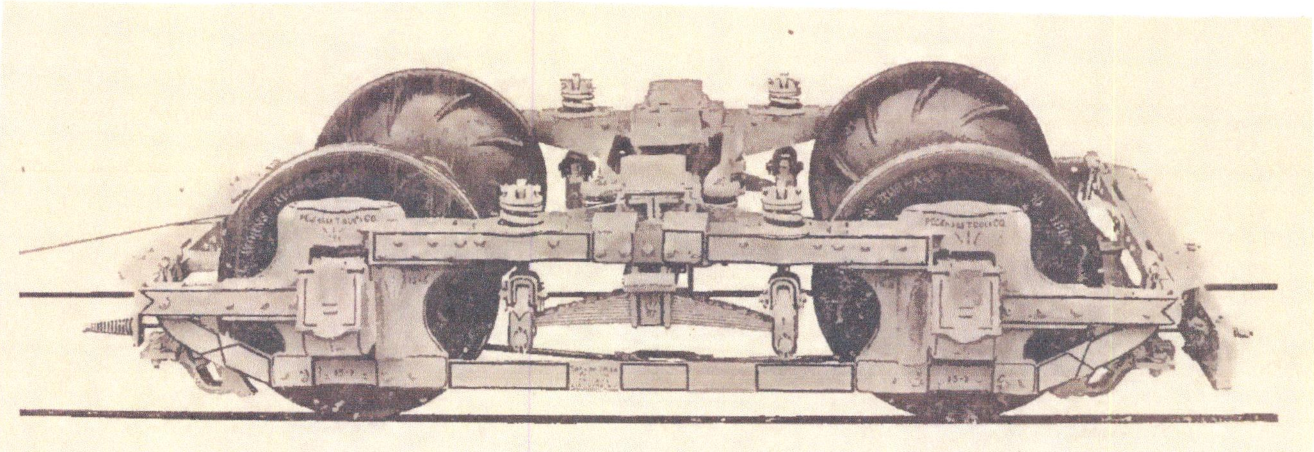
Side & End Elevation, Plan 1252A.

3 Cars – Milwaukee Racine & Kenosha Ry. – Lot 887 – 1897

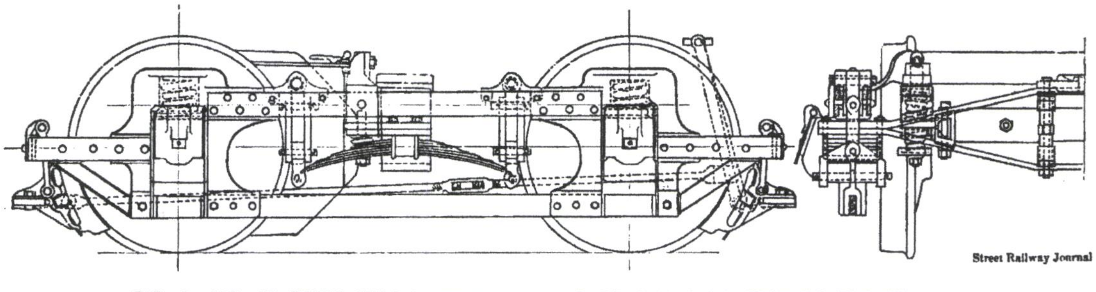
Pullman Car Works St. Car Dept., Pullman, Ill.

Courtesy of W. Van Der Sluys   Reworked 11-1970 G.K.

3.5 MM=1'0"



PECKHAM NO. 15 SWIVEL TRUCK. 1898 SRR



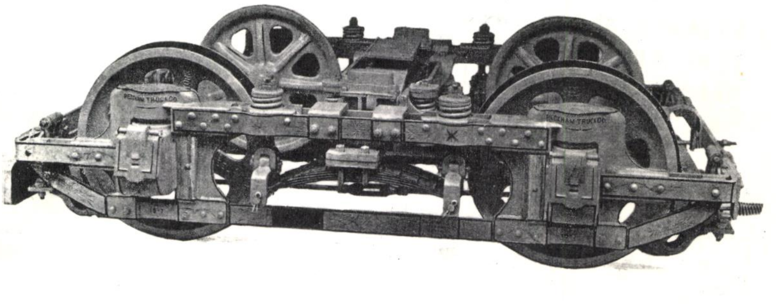
Street Railway Journal

FIG. 6 —NO. 15 EXTRA STRONG TRIPLE CUSHIONED SWING BOLSTER DOUBLE TRUCK.

PECKHAM NUMBER 15 TRIPLE CUSHIONED SWING BOLSTER DOUBLE TRUCK

Cantilever type truck with top chord hung swing links. Designed for high speed interurban, elevated or trunk line railroad service.

Despite the number, this was one of the 14 series of trucks and was constructed first in 1897.



Mid-1890's Rosters

CAR NUMBER	BUILDER	BUILT	TRUCKS	MOTORS	CONTROL	WEIGHT	SEATS	LENGTH OVERALL *See Note Below	WIDTH OVERALL	HEIGHT OVER ROOF			REMARKS DATA: D. J. MUELLER W. F. NEDDEN
MILWAUKEE STREET RAILWAY													
7 CARS	JONES	'80s											SINGLE TRUCK CLOSED AND OPEN. SENT AWAY FOR REBUILDING; FORMER HORSECARS.
50 CARS	BROWNELL	'91		2-EDISON8	2 EDISON		20	16'0"	7'11"	12'0"			SINGLE TRUCK CLOSED.
200	MILWAUKEE ST. RY.	'89		2GE800	2-K2		14	16'0"	7'6"	12'3"			SINGLE TRUCK CLOSED,PRESIDENT'S CAR.REBUILT 1/92,LATER RENUMBERED 400,800,8,RESPECTIVELY.
24 CARS ("SAMPLES" - 2 FROM EACH OF 12 BUILDERS)	AMERICAN, BRILL, BROWNELL, ELLIS, GILBERT, JONES, LaCLEDE, LAMOKIN, NORTHERN, PULLMAN, ST. LOUIS, & STEPHENSON	ALL '92		VARIED: EDISON 6,8,14; WP 30; WH 3.			40-50 FOR OPEN	18'0" FOR CLOSED					ALL SINGLE TRUCK; ONE OPEN, ONE CLOSED CAR FROM EACH BUILDER FOR TRIAL BEFORE ORDERING STANDARD EQUIPMENT.
1 CAR	BROWNELL	'92	McGUIRE COLUMBIAN	2-EDSN14	2-K2		24	20'0"	7'11½"	12'0"			SINGLE TRUCK CLOSED;SAMPLE "ACCELERATOR" CAR WITH TWO BULKHEAD DOORS FOR FASTER LOADING.
6 CARS	MILWAUKEE ST. RY.	'92	McGUIRE	2-EDISON8	2-K2		30	22'0"	7'9"	12'0"			SINGLE TRUCK CLOSED; SPLICED JONES HORSECARS, BODIES ENLARGED FROM 14' TO 22'.
20 CARS	JONES	'92	BRILL	2-W.P.30	2K		24	19'0"	7'9"	12'8"			SINGLE TRUCK CLOSED.
50 CARS	PULLMAN	'92	BRILL	2-EDSN14	2-K2		22	18'0"	7'10½"	12'2½"			SINGLE TRUCK CLOSED.
6 CARS	BROWNELL	'93	McGUIRE COLUMBIAN	2-EDSN14	2-K2		24	20'0"	7'11½"	12'0"			SINGLE TRUCK CLOSED "ACCELERATOR" CARS WITH TWO BULKHEAD DOORS FOR FASTER LOADING.
21 CARS	PULLMAN	'93	BRILL	2-EDSN14	2-K2		22	18'0"	7'10½"	12'2½"			SINGLE TRUCK CLOSED.
25 CARS	PULLMAN	'93	McGUIRE COLUMBIAN	2-EDISON8	2-K2		50	27'7"	7'11"	12'3"			SINGLE TRUCK OPEN.
50 CARS	BRILL	'93	BRILL	2-EDISON8	2-K2		50	26'7"	7'11"	12'6"			SINGLE TRUCK OPEN.
209	BRILL	'93	BRILL MAX. TR.	2-GE800	2-K2		28	22'0"	7'9"	12'3"			DOUBLE TRUCK CLOSED; DISPLAY CAR AT 1893 A.S.R.A.CONVENTION; LATER RENUMBERED 101.
1 CAR	BRILL	'93	BRILL MAX. TR.	2-GE1000	2K10		32	25'0"	7'9"	12'6"			DOUBLE TRUCK CLOSED; LATER RENUMBERED 102.
6 CARS	ELLIS	'93	BRILL	2-EDISON8	2-K2		45	25'4"	8'0"	12'8"			SINGLE TRUCK OPEN.
12 CARS	PULLMAN	'95	McGUIRE A1	2-GE800	2-K2		24	19'0"	7'10"	12'0"			SINGLE TRUCK CLOSED.
*NOTE: FOR CLOSED CARS, ABOVE LENGTHS ARE MINUS PLATFORMS. FOR OPEN CARS, ABOVE LENGTHS ARE OVER CORNER POSTS.													
WEST SIDE STREET RAILWAY													
20 CARS	JONES	'80s											SINGLE TRUCK OPEN, BOTH MOTORS & TRAILERS; FORMER HORSECARS.
35 CARS	JONES	'80s											SINGLE TRUCK CLOSED, BOTH MOTORS & TRAILERS; FORMER HORSECARS.
6 CARS	PULLMAN	'90											SINGLE TRUCK CLOSED MOTORS.
MILWAUKEE ELECTRIC RAILWAY													
12 CARS	ST. CHARLES	'90						27'6"					SINGLE TRUCK CLOSED.
10 CARS	AMERICAN	'92					45						SINGLE TRUCK OPEN TRAILERS.
MILWAUKEE & WAUWATOSA MOTOR RAILWAY													
2, 3, 11	2 PORTER 1 BALDWIN		–	–	–								STEAM DUMMY LOCOMOTIVES.
2 CARS	BRILL	'88	BRILL	–	–		35	33'10"	7'6½"	10'10"			DOUBLE TRUCK CLOSED TRAILERS; LATER RENUMBERED 704-705 BY TMER&L.
4 CARS	PULLMAN	'88		–	–		40	26'0" BODY ONLY	8'3-5/8"				DOUBLE TRUCK CLOSED TRAILERS;LATER MOTORIZED & RENUMBERED 105-108 BY TMER&L.
MILWAUKEE & WHITEFISH BAY RAILWAY													
1, 2	BALDWIN(0-4-2T)		–	–	–								STEAM DUMMY LOCOMOTIVES.
1-3	BRILL	'88	BRILL	–	–		35	33'10"	7'6½"	10'10"			DOUBLE TRUCK CLOSED TRAILERS SIMILAR TO M&WM CARS;LATER RENUMBERED 701-703 BY TMER&L.
4-7	BRILL	'89		–	–			35'6"	8'1-1/7"	13'0"			DOUBLE TRUCK OPEN TRAILERS;LATER RENUMBERED 594-597 BY TMER&L & MOTORIZED.
8-9	BRILL	'89		–	–			35'8"	8'2"	10'10"			DOUBLE TRUCK OPEN TRAILERS; LATER MOTORIZED BY TMER&L;LATER 1598-1599;1599 TO MANITOWOC.
10-11	PULLMAN	'93		–	–		40						DOUBLE TRUCK COMBINATION OPEN-CLOSED; MOTORIZED BY MILWAUKEE ST.RY.;RENUMBERED 103-104.
1 LOCOMOTIVE			–	–	–								
WAUKESHA BEACH ELECTRIC RAILWAY													
1	PULLMAN	'95											DOUBLE TRUCK CLOSED MOTOR NAMED "WAUKESHA;" LATER RENUMBERED 109; LATER 809.
2, 3	PULLMAN	'93											DOUBLE TRUCK OPEN MOTORS; LATER RENUMBERED 592 & 593 RESPECTIVELY BY TMER&L.
10-13	PULLMAN	'95											DOUBLE TRUCK OPEN TRAILERS; 11 RENUMBERED 706 BY TMER&L.
MILWAUKEE RACINE & KENOSHA ELECTRIC RAILWAY													
1,3,5,7, 9, & 11	ST. LOUIS	'96						42'3"					DOUBLE TRUCK CLOSED;1,3 & 5 CLOSED PLATFORMS & RENUMBERED 98,100,1999 RESPECTIVELY BY TMER&L; 7,9,& 11 REAR PLATFORMS OPEN.
15,17,19	PULLMAN	'97						40'0"					DOUBLE TRUCK CLOSED; 15 NAMED "WISCONSIN."
21,23	PULLMAN	'98						40'0"					DOUBLE TRUCK CLOSED; 21 NAMED "WASHINGTON."
25	PULLMAN	'98						40'0"					COMBINATION PASSENGER-BAGGAGE DOUBLE TRUCK CLOSED CAR; NAMED "WEST VIRGINIA."
202	TAUNTON	'98						21'6"					SINGLE TRUCK SNOW PLOW.
MILWAUKEE & WAUWATOSA ELECTRIC (FORMERLY MIL. & WAU. RAPID TRANSIT) RAILWAY													
4 CARS													SINGLE TRUCK MOTORS.

B-3220

TMER&L - THE MILWAUKEE ELECTRIC RAILWAY AND LIGHT COMPANY.
M&WM - MILWAUKEE AND WAUWATOSA MOTOR RAILWAY.

TMER & L Co.; 1900 Roster

CAR NUMBER	BUILDER	BUILT	TRUCKS	MOTORS	CONTROL	WEIGHT	SEATS	LENGTH OVERALL	WIDTH OVERALL	HEIGHT OVER ROOF			REMARKS DATA: D. J. MUELLER, W. F. NEDDEN, R. T. VOLKMANN
SINGLE TRUCK CLOSED PASSENGER CARS													
103	JONES	'91	McGUIRE	–	–		20	27'7"	7'5"	12'5"	TM		
108, 113	PULLMAN	'91	McGUIRE	–	–		20	27'7"	7'5"	12'5"	TM		108 BECAME LINE CAR A1; 113 BECAME WORK CAR 247.
240, 241	PULLMAN	'91	McGUIRE COLUMBIAN	2-EDISON8	2 EDISON		20	26'11"	7'4"	12'2"	TM		FENDERS INSTALLED 1899.
242, 244	ST. CHARLES	'90	McGUIRE A1	2-EDSN 14	2-K2		22	31'1"	7'9-1/4"	12'2-1/4'	TM		242 SOLD TO DUBUQUE ST. RY. WITHOUT MOTORS; 244 SOLD TO ASHLAND LT.POWER & ST.RY.CO. 10/12/00.
245	JONES	'92	PECKHAM	2-EDISON8	2-K2		30	33'6"	7'9"	12'0"	TM		SPLICED FROM HORSECARS; FENDERS INSTALLED 1899.
246-253	ST. CHARLES	'90	McGUIRE A1	2-EDSN 14	2-K2		22	31'1"	7'9-1/4"	12'2-1/4'	TM		246,249 SOLD TO STATE ELECTRIC CO. 5/14/00. 247, 248, 251-253 SOLD TO DUBUQUE ST. RY. WITHOUT MOTORS EXCEPT 251 WHICH WAS COMPLETE.
254-262	(SAMPLE CARS)	'92	(VARIOUS)		2-K2		22	30'5"	7'11½"	11'8"	TM		260 EQUIPPED WITH HEADLIGHTS FOR HOWELL AVE. LINE SERVICE.
263-320	PULLMAN	'92-'93	35 CARS - BRILL 23 CARS - McGUIRE COLUMBIAN	18 CARS EDISON8 32 CARS EDSN 14 5 CARS SPRGUE6 3 CARS W.H.12	2-K2		22	29'6"	7'10½"	12'2½"	TM		THESE ARE REMAINDER OF 71 CARS; MISSING ONES PROBABLY DESTROYED IN 1892 KINNICKINNIC (K.K) FIRE; FENDERS INSTALLED 1899.
321-327	BROWNELL	'92-'93	McGUIRE COLUMBIAN	2-EDSN14	2-K2		24	31'0"	7'11½"	12'0"	TM		"ACCELERATOR" CARS; FENDERS INSTALLED 1899.
328-338	JONES	'92	BRILL	2-W.P.30	2K		24	30'2"	7'9"	12'8"	TM		BECAME PART OF "GOLD-DUST TWINS" SERIES IN RACINE. REST OF 20-CAR ORDER BURNED IN 1892 K.K. FIRE.
339-350	PULLMAN	'95	McGUIRE A1	10 CARS G.E.800 2 CARS W.P.30	2-K2		24	32'2"	7'10"	12'0"	TM		BECAME PART OF "GOLD-DUST TWINS" SERIES IN RACINE.
400	MILW. STREET RAILWAY	RBLT. 1/92	McGUIRE A1	2-GE800	2-K2		14	25'0"	7'6"	12'3"	TM		FORMER PRIVATE CAR 200, LATER RENUMBERED AS HOSPITAL CAR 800, LATER CAR 8.
SINGLE TRUCK OPEN PASSENGER CARS													
411-413, 415-418, 420-430	JONES	'86	McGUIRE	2-EDISON8	2 EDISON		50	28'8"	7'8"	12'2"	TM		FORMER HORSECARS; 413 SOLD TO STATE ELECTRIC CO.4/24/00 WITHOUT ELECTRICAL EQUIPMENT; 415, 416, 418 SOLD TO STATE ELECTRIC CO. 3/30/00. 417 SOLD TO STATE ELECTRIC CO. 4/24/00 WITHOUT ELECTRICAL EQUIPMENT; 420, 427 SOLD TO STATE ELECTRIC CO. 7/9/00. 422 SOLD TO STATE ELECTRIC CO. 3/30/00; 423, 424, 426 SOLD TO MANISTEE, FILER CITY RY. CO. 4/12/00 WITHOUT ELECTRICAL EQUIPMENT; 425 SOLD TO SHEBOYGAN LT. POWER & RY. CO. 3/27/00; 428, 430 SOLD TO STATE ELECTRIC CO. 7/24/00; 429 SOLD TO STATE ELECTRIC CO. 4/24/00 WITHOUT ELECTRICAL EQUIPMENT.
431-437	JONES	'86	McGUIRE	2-EDISON8 OR SPRGUE6	2 EDISON		40	28'8"	7'8"	12'2"	TM		FORMER HORSECARS; FENDERS INSTALLED 1899.
450-453	(SAMPLE CARS)	'92	(VARIOUS)	2-EDISON8	2 EDISON		50	31'6"	7'10"	12'3"	TM		FENDERS INSTALLED 1899; 453 SOLD TO ASHLAND LT. POWER & ST.RY. 6/30/00.
454-459	ELLIS	'93	BRILL	2-EDISON8	2-K2		45	29'6"	8'0"	12'8"	TM		FENDERS INSTALLED 1899.
460	PULLMAN	'92		2-EDISON8	2 EDISON		50	31'6"	7'10"	12'3"	TM		SAMPLE CAR; FENDERS INSTALLED 1899.
461-485	PULLMAN	'93	McGUIRE COLUMBIAN	2-EDISON8	2-K2		50	31'4"	7'11"	12'3"	TM		FENDERS INSTALLED 1899.
486	STEPHENSON	'92	STEPHENSON	2-EDISON8	2 EDISON		50	31'6"	7'10"	12'3"	TM		SAMPLE CAR; FENDERS INSTALLED 1899; 486 SOLD TO ASHLAND LT.POWER & ST.RY. 6/30/00.
487-536	BRILL	'93	BRILL		2-K2		50	31'1"	7'11"	12'6"	TM		FENDERS INSTALLED 1899.
MARGUERITE	TMER&L	'96	ROBINSON RADIAL	2-EDSN14	2-K2		24	33'4"	8'3"	12'2"	TM		SPECIAL CHARTER PARTY CAR.
DOUBLE TRUCK CLOSED PASSENGER CARS													
1,3,5,7,9,11	ST. LOUIS	'96	ST. LOUIS	2-WLKR10S	1 WALKER		42	42'3"	8'½"	12'9"	ML		FORMER MRK CARS; FENDERS & ARC HEADLIGHT INSTALLED 1899; 1,3 & 5 CLOSED PLATFORMS & RENUMBERED 98, 100, 1999, RESPECTIVELY; 7, 9 & 11 REAR PLATFORMS OPEN.
15,17,19	PULLMAN	'97	PECKHAM	2-W.H.30B	1 K 11		36	40'0"	8'1-1/4"	12'9"	ML		FORMER MRK CARS; FENDERS & ARC HEADLIGHT INSTALLED 1899; 15, 19 SOLD TO SHEBOYGAN LT. POWER & RY.CO. 3/27/00 AS 23-24; 24 LATER WAS LINE CAR 102; 17 REBUILT & RENUMBERED 94
21, 23	PULLMAN	'98	PECKHAM	2-W.H.30B	1 K 11		36	40'0"	8'1-1/4"	12'9"	ML		FORMER MRK CARS; FENDERS & ARC HEADLIGHT INSTALLED 1899; SOLD TO KIRKPATRICK CONSTRUCTION CO. 5/19/00.
25	PULLMAN	'98	PECKHAM	2-W.H.30B	1 K 11		30	40'0"	8'1-1/4"	12'9"	ML		FORMER MRK COMBINE; FENDERS & ARC HEADLIGHT INSTALLED 1899.
98, 100	(SEE NOS. 1 & 3, ABOVE)												
101	BRILL	'93	BRILL MAX. TR.	2-GE 800	2GEK2		28	33'1"	7'9"	12'3"	TM		FORMER 209; DEMONSTRATOR AT 1893 A.S.R.A. CONVENTION; FENDERS INSTALLED 1899; LATER 801.
102	BRILL	'93	BRILL MAX. TR.	2-GE1000	2GEK10		32	37'6"	7'9"	12'6"	TM		FENDERS & HEADLIGHTS INSTALLED 1899; LATER 802.
103-104	PULLMAN	'93	BRILL MAX. TR.	2-GE1000	2GEK10		36	39'3"	8'1"	12'5½"	TM		COMBINATION OPEN-CLOSED CARS; FORMER WFB TRAILERS; FENDERS & HEADLIGHTS INSTALLED 1899.
105-108	PULLMAN	'88	BARNEY & SMITH "H" MCB	2-GE1000	2GEK10		40	38'2"	8'3-5/8"	12'5"	ML		FORMER M&WM CARS; MOTORIZED 1898; LATER RENUMBERED 805-808. ORIGINAL "THROUGH" WELLS ST.CARS-2 DIFF. TRUCKS EACH CAR.

B-3220

MRK - MILWAUKEE RACINE & KENOSHA ELECTRIC RY. CO.
TM - THE MILWAUKEE ELECTRIC RAILWAY & LIGHT CO. (CITY SERVICE)
ML - MILWAUKEE LIGHT, HEAT & TRACTION CO. (INTERURBAN, SUBURBAN, RACINE SERVICE)
WFB - MILWAUKEE & WHITEFISH BAY STEAM DUMMY

M&WM - MILWAUKEE & WAUWATOSA MOTOR RAILWAY.
WB - WAUKESHA BEACH ELECTRIC RAILWAY CO.
WTLH&P - WISCONSIN TRACTION, LIGHT, HEAT & POWER CO.

the Soo Line
Historical and Technical
Society

Ken Soroos
2761 Raritan Road
Madison, WI 53711-5234

October 5, 2000

Dear Russell -

Thank you for sending the information on the VCS&I Ry. car no. 1 that arrived today. The broadside photocopy from the Smithsonian is very nice. I hadn't seen it before. Yes, I'll always have an interest in that little line in my home town.

Since we last corresponded, I found that the building behind the interurban car on page 10 of my article was the old high school in Valley City. The historical museum there has several photos in which it appears. It burned not too many years after the photo was taken. So, that photo was definitely taken in Valley City. The interurban line's offices and car shed would have been right behind the photographer.

Second, Central Avenue in Valley City received extensive reconstruction in 1993. As part of the project, a cultural resources study was done and parts of the buried trackwork in the street were carefully excavated. An industrial archaeologist was employed to prepare an extensive report of the findings. He included my article, but also went back and did more research on the beginnings of the line from the newspapers of that time. I'm enclosing some of his writing and copies of pertinent newspaper articles for you to look at.

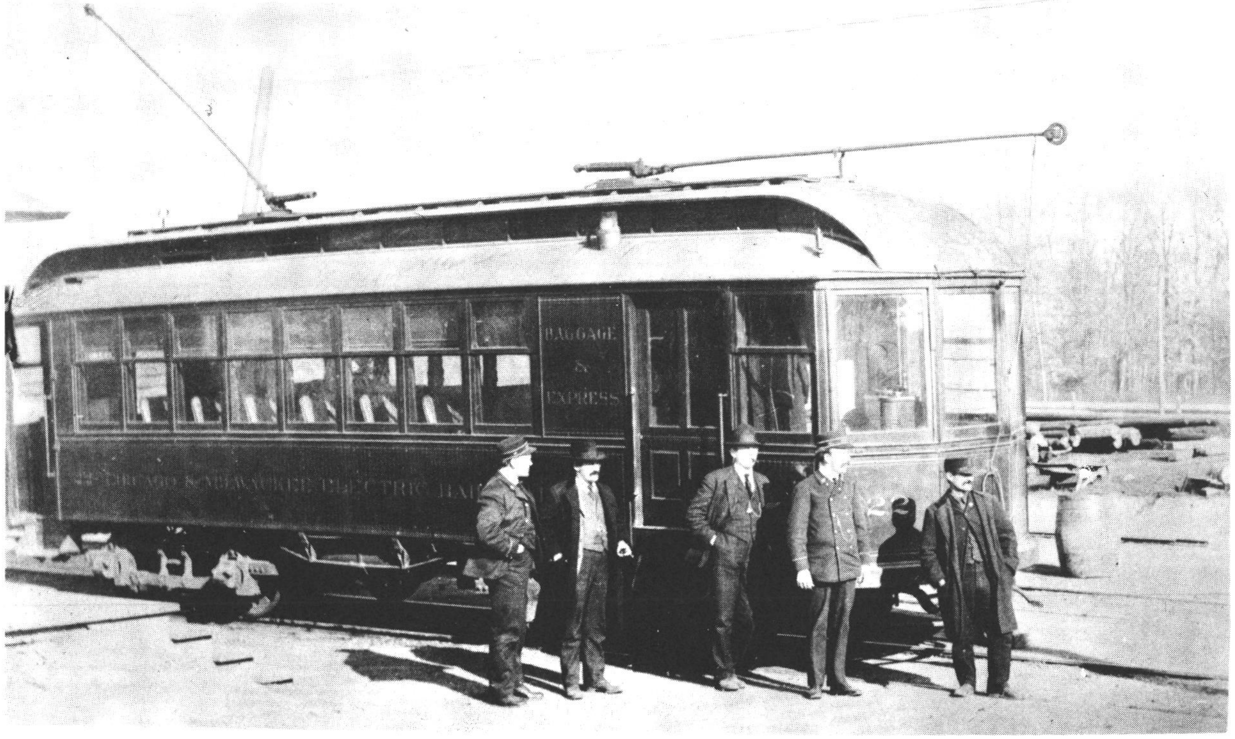
I'd like to redraw VCS&I car no. 1 now that we have more information, but my knowledge of interurban car details is lacking. Are the trucks shown on the Smithsonian photocopy Peckham 14-Bs, or do you have something that could be photocopied, or better yet, a diagram? Are there any other diagrams of this type or a similar car that would be helpful?

Thanks for writiing and any other help you may be able to offer.

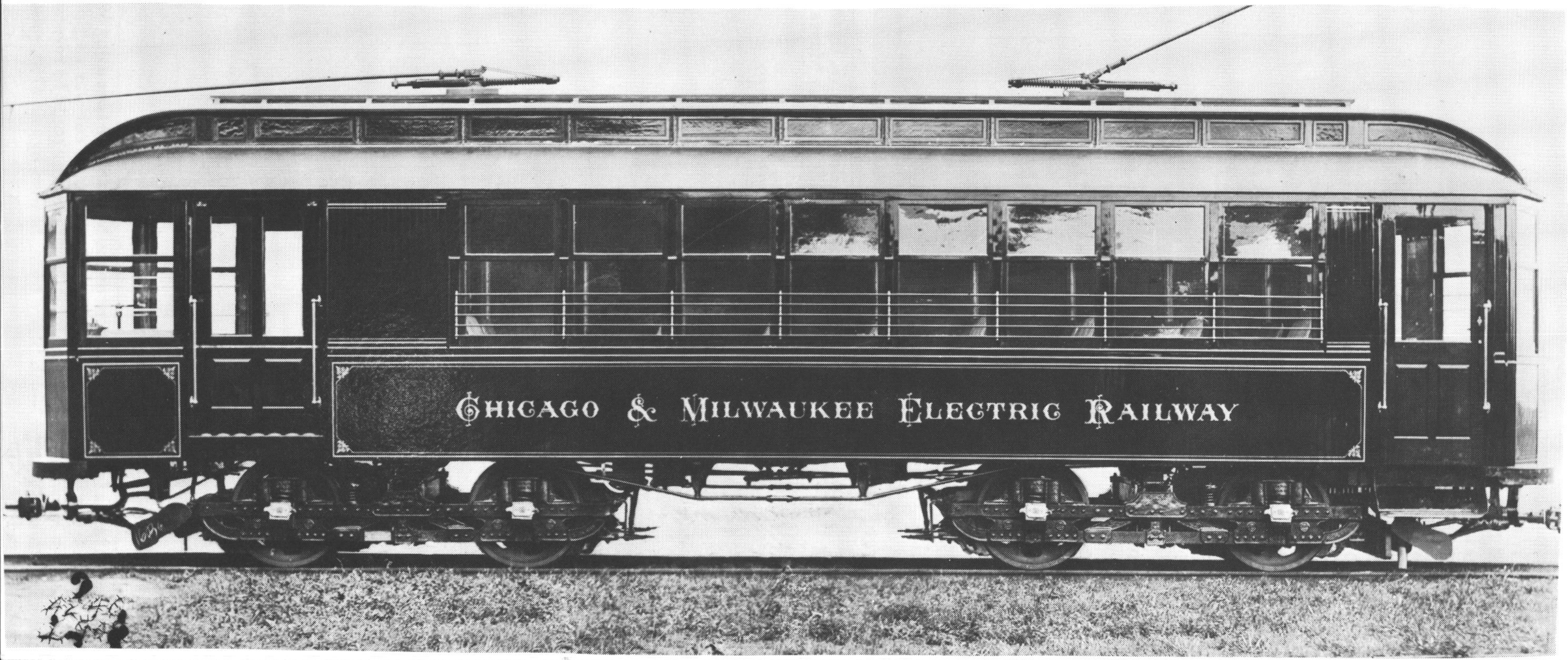
Sincerely,

Ken Soroos

Ken Soroos
608-271-3889 or kensoroos@sooline.org


BAGGAGE & EXPRESS
CHICAGO & MILWAUKEE ELECTRIC RAILWAY
12

Chicago & Milwaukee Electric Railway
Passenger-Baggage Motors 30-31
Pullman Order #908 August 1898
Peckham 14B trucks, two GE 57 motors, two K-14 controllers, hand brakes.
Renumbered 11-12 in 1899. CERA April 1947 publication listed 12 with Brill 27A1 trucks
Renumbered 21-22 about 1902; re-equipped with Curtis trucks, four GE 57 motors, K-14 controlllers, U.S. #6 trolley bases, air brakes.


CHICAGO & MILWAUKEE ELECTRIC RAILWAY

CAPITOL CAR LINE

Bismarck, ND

CAPITOL CAR LINE

Bismarck, N.D.

The state capitol building at Bismarck, N.D., at the turn of the century (1900) was slightly over one mile from the city hotels and railroad depot. Transportation of employees and members of the legislature to and from the building had always been difficult and inconvenient. Thus a bill was passed appropriating funds with which to build an electric railway from downtown Bismarck to the capitol building. It was also decided to remodel the building heating plant and construct a lighting plant in connection with the power plant for the electric railway.

The railway was constructed to 4'8½" gauge using 45 lb. T rail. Track was laid from the Soo Line depot at 9th St. and Main Ave., on Main Ave. to 4th St., and north on 4th St. to the state capitol. About two-thirds of the line was through the city and on city streets; the other one-third ran through what was known as the Capitol Park Addition. Inside the city proper the grade of the track was at the established grade of the city streets. On that part of the line running through the Capitol Park Addition a cut of 4 ft. was made for about 300 ft., a fill varying from 0 ft. to 8 ft. for over 600 ft., and another fill varying from 0 ft. to 6 ft. for about 400 ft. were required. The overhead poles were of cedar and 30 ft. long. The line was constructed, completed and opened for service during 1903. According to the 1907 U.S. Census total track was 1.50 miles (no sidings) with 1.25 miles of span wire construction and 0.25 miles of side bracket construction.

The power supply for the railway line was originally furnished by one Ideal 14" x 14" steam engine, built by A. L. Ide & Sons, Springfield, Illinois, directly connected to one Commercial Electric Co. 550 volts D.C. 100 KW generator running at 275 r.p.m. According to the 1907 U.S. Census power equipment consisted of one 150 h.p. Heine boiler, one 175 h.p. Ide engine and two Ide generators of 175 KW total capacity.

The single piece of equipment owned was a double-truck closed passenger motor car built by American Car Co. of St. Louis, Missouri, in 1903. Length over end panels was 25' and over corner pieces 34'5"; width over sills 8'4". Side sills and end sills were 4½"x7"; sill plates and outside of sills 7"x½"; thickness of corner posts 3 3/4" and side posts 2 3/4". It was fitted with fourteen reversible and four stationery rattan seats. Mechanical and electrical equipment consisted of two Brill 27-A1 trucks (6'6" wheelbase, 33" wheels), four Westinghouse 12-A motors (30 h.p. each), two Westinghouse controllers, and Christensen air brakes. The car had radial draw bars fitted with Janney couplers as it was expected to have two or three special hopper cars built for hauling coal to the powerhouse. The car also was equipped with sand-boxes, Brill "Dedenda" gongs, and Brill folding gates. It carried the number 1 and was lettered THE CAPITOL LINE.

ORDER NO. 512

This line was listed in Moody's Manuals as the STATE OF NORTH DAKOTA ELECTRIC RAILWAY.

It was proposed to construct a track connection with the steam railroad running to the mines located about 25 miles from Bismarck. The special hopper cars would be sent to be loaded, then switched to the electric railway and hauled to the capitol building.

At an unknown date the track was cutback on Main Ave. from 9th St. to 5th St. The 1927 U.S. Census reported track mileage at 1.12 miles.

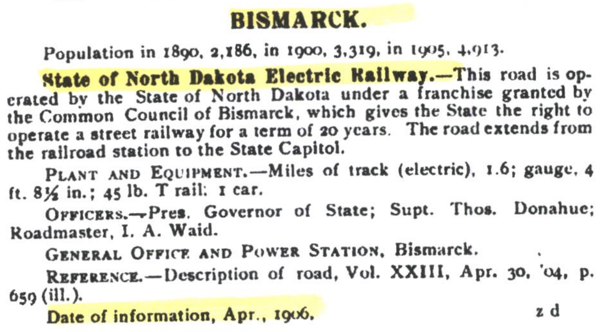
Number 1 was placed in storage about 1921. A single-truck, semi-convertible passenger motor car, number 102, was acquired from the Grand Forks Street Railway to replace it. This car was repainted blue.

From the very beginning the line was not a financial success. During February, 1917, discontinuance of operation was discussed but no action was taken. The population of Bismarck grew from 6,000 persons in 1913 to 7,122 persons in 1924. The fare was still 5¢ in 1924. The 1927 U.S. Census provided some interesting statistics: 51,081 passengers carried, 18,000 car miles operated, and 99,000 KWH of electricity consumed. Investment in road and equipment was $22,400. Revenue $2,554, Expenses $5,600 (wages were $2,700), Deficit $3,046.

In 1929 space was needed by the highway department so the body of original car number 1 was taken from storage and moved the picnic grounds behind the capitol building for use as a shelter.

The manager-motorman during the entire existence of the line was one Mickey O'Connor, a genial Irishman who had once driven a stage on the Bismarck to Deadwood, S.D., line. He had many friends among the legislators who found it hard to resist his pleas to keep the electric railway in operation. However the end finally came on February 28, 1931, when the last run was made. The body of the single-truck passenger car became a lunch wagon in Mandan, N.D.

Per Robert Taunley: april 30, 1931.



BISMARCK.

Population in 1890, 2,186, in 1900, 3,319, in 1905, 4,913.

State of North Dakota Electric Railway.—This road is operated by the State of North Dakota under a franchise granted by the Common Council of Bismarck, which gives the State the right to operate a street railway for a term of 20 years. The road extends from the railroad station to the State Capitol.

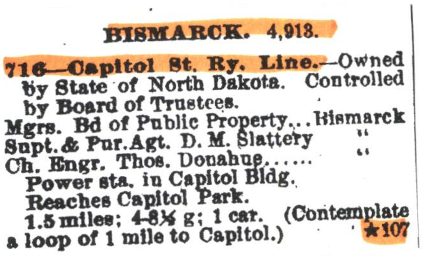
PLANT AND EQUIPMENT.—Miles of track (electric), 1.6; gauge, 4 ft. 8½ in.; 45 lb. T rail; 1 car.

OFFICERS.—Pres. Governor of State; Supt. Thos. Donahue; Roadmaster, I. A. Waid.

GENERAL OFFICE AND POWER STATION, Bismarck.

REFERENCE.—Description of road, Vol. XXIII, Apr. 30, '04, p. 659 (ill.).

Date of information, Apr., 1906. z d



BISMARCK. 4,913.

716—Capitol St. Ry. Line.—Owned by State of North Dakota. Controlled by Board of Trustees.

Mgrs. Bd of Public Property... Bismarck

Supt. & Pur. Agt. D. M. Slattery "

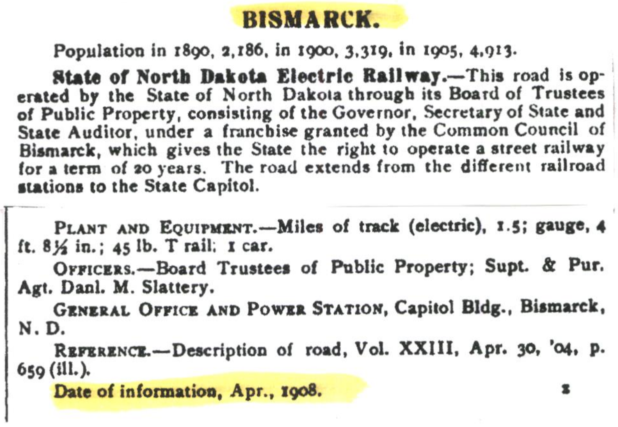
Ch. Engr. Thos. Donahue..... "

Power sta. in Capitol Bldg.

Reaches Capitol Park.

1.5 miles; 4-8½ g; 1 car. (Contemplate a loop of 1 mile to Capitol.) ★107

Oct 1907



BISMARCK.

Population in 1890, 2,186, in 1900, 3,319, in 1905, 4,913.

State of North Dakota Electric Railway.—This road is operated by the State of North Dakota through its Board of Trustees of Public Property, consisting of the Governor, Secretary of State and State Auditor, under a franchise granted by the Common Council of Bismarck, which gives the State the right to operate a street railway for a term of 20 years. The road extends from the different railroad stations to the State Capitol.

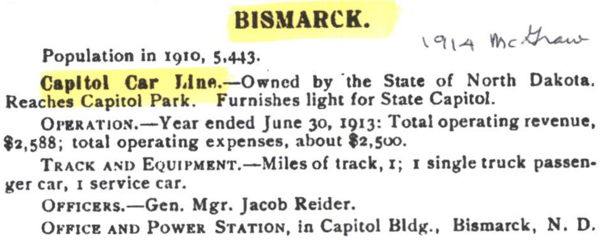
PLANT AND EQUIPMENT.—Miles of track (electric), 1.5; gauge, 4 ft. 8½ in.; 45 lb. T rail; 1 car.

OFFICERS.—Board Trustees of Public Property; Supt. & Pur. Agt. Danl. M. Slattery.

GENERAL OFFICE AND POWER STATION, Capitol Bldg., Bismarck, N. D.

REFERENCE.—Description of road, Vol. XXIII, Apr. 30, '04, p. 659 (ill.).

Date of information, Apr., 1908. z



BISMARCK.

1914 McGraw

Population in 1910, 5,443.

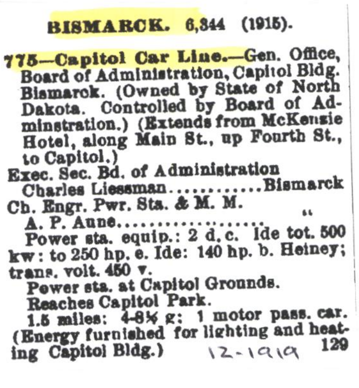
Capitol Car Line.—Owned by the State of North Dakota. Reaches Capitol Park. Furnishes light for State Capitol.

OPERATION.—Year ended June 30, 1913: Total operating revenue, $2,588; total operating expenses, about $2,500.

TRACK AND EQUIPMENT.—Miles of track, 1; 1 single truck passenger car, 1 service car.

OFFICERS.—Gen. Mgr. Jacob Reider.

OFFICE AND POWER STATION, in Capitol Bldg., Bismarck, N. D.



BISMARCK. 6,344 (1915).

775—Capitol Car Line.—Gen. Office, Board of Administration, Capitol Bldg. Bismarck. (Owned by State of North Dakota. Controlled by Board of Administration.) (Extends from McKenzie Hotel, along Main St., up Fourth St., to Capitol.)

Exec. Sec. Bd. of Administration

Charles Liessman............Bismarck

Ch. Engr. Pwr. Sta. & M. M.

A. P. Anne.................. "

Power sta. equip.: 2 d. c. Ide tot. 500 kw: to 250 hp. e. Ide: 140 hp. b. Heiney; trans. volt. 450 v.

Power sta. at Capitol Grounds.

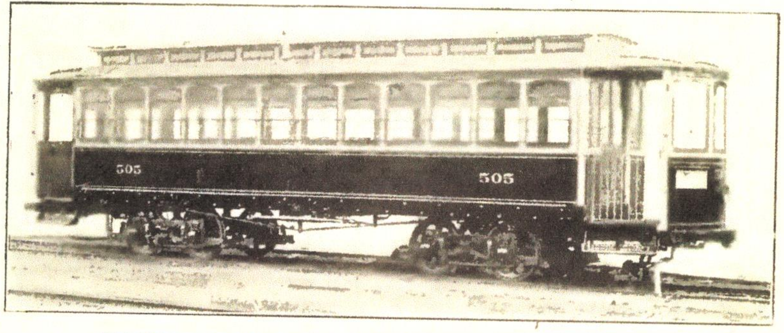
Reaches Capitol Park.

1.5 miles: 4-8½ g: 1 motor pass. car. (Energy furnished for lighting and heating Capitol Bldg.) 129

12-1919

handsomely finished in cherry, and the ceilings are three-ply curly maple veneer. The upper window sashes are stationary, and the lower have pockets in the side sashes with the openings covered with hinged lids.

The construction is extra powerful throughout. The side sashes, of long-leaf yellow pine, are 5½ ins. x 8½ ins., plated on the outside with 8-in. x ⅝-in. steel; end sills, 4¾ ins. x 9 ins.; sub-sills, 4¾ ins. x 7¼ ins.; diagonal braces, 4 ins. x 6 ins. The inside trusses are shouldered high upon the posts, and are 2½ ins. x ⅜ in.; under truss rods are anchored at the body bolsters. The platforms are dropped 8½ ins. below the car floor, and have 2¾-in. x 8-in. center and outside knees, reinforced with angle-iron. Seven steel rafters sandwiched between wooden carlings strengthen the roof. The length of the cars over all is 41 ft. ½ in.; length over platforms, 40 ft.; inside length, 29 ft. 3¾ ins. Width over posts, 7 ft. 9 ins., and over all, 8 ft. ½ in. The roofs at the center are 7 ft. 10 ins. Track scrapers, alarm and conductor gongs and angle-iron bumpers of the builder's patented make are also furnished.



EXTERIOR OF CAR FOR ROCHESTER RAILWAY COMPANY

◆

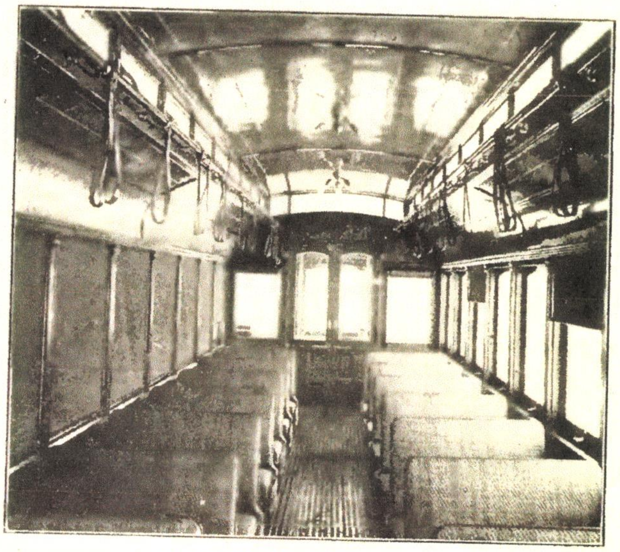
EAST BOSTON TUNNEL

The tunnel connecting East Boston with Boston is now practically completed, as far as the structure of the tunnel is concerned, and the contractors are now installing the ventilating ducts and conduits for the feed wires. The track will be laid as soon as this work is completed. It is the plan of the Boston Elevated Railway Company, which will operate this tunnel, to run through cars from East Boston through the tunnel to connect with its Boston surface and elevated system, with probably a change of cars at the Boston end.

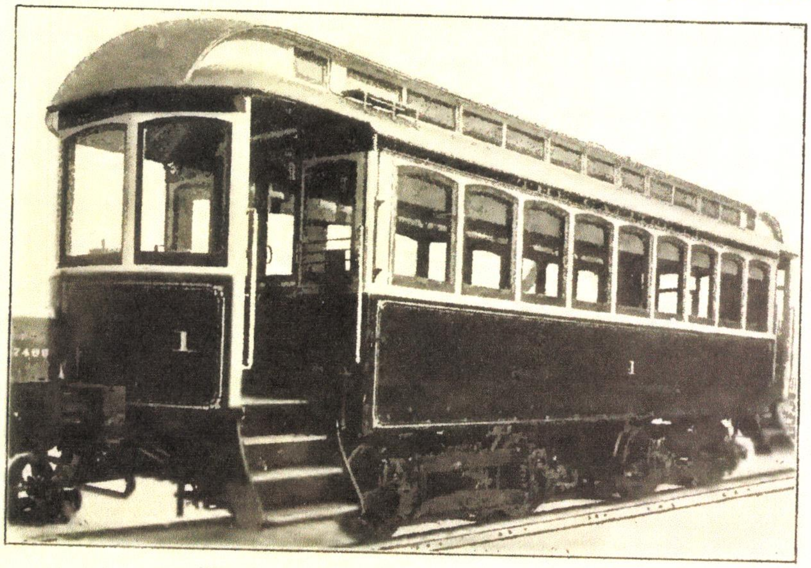
◆

CAR FOR BISMARCK, N. D.

The American Car Company, of St. Louis, has delivered to the Board of Capital Commissioners of Bismarck, N. D., the handsome car shown in the accompanying illustration. This car is particularly interesting on account of its being one of the shortest ever mounted on high-speed trucks. It will be used on the State line referred to in the STREET RAILWAY JOURNAL of Feb. 13. The car is seated for thirty-six passengers, the seats being of the walk-over type, 34 ins. in length, leaving an aisle 22¾ ins. wide. Pockets in the side walls receive the window sashes. The interior is finished in natural cherry with decorated birch ceilings. The platforms are flush with the car floor, and are fitted with draw-bars and standard steam car couplers. The latter are placed between heavy buffers, solidly backed with oak. From the rail heads to the lowest platform step is 17¾ ins., and from step to step 9 ins. The length of the car over end panels is 25 ft., and over corner pieces, 34 ft. 5 ins.; width over sills, 8 ft. 4 ins. The side sills and end sills are 4½ ins. x 7 ins.; sill plates and outside of side sills, 7 ins. x ½ in.; thickness of corner posts, 3¾ ins., and side posts, 2¾ ins. Besides the radial draw-bars already mentioned it is equipped with sand-boxes, "Dedenda" gongs and Brill folding gates. The wheel base of the trucks is 6 ft. 6 ins., the diameter of the wheels 33 ins. The four-motor equipment aggregates 100 hp.



INTERIOR OF BISMARCK CAR



EXTERIOR OF CAR FOR BISMARCK, N. D.

◆

Electric railway interests of Western Ohio are taking an active interest in the formation of a trolley baseball league. It is proposed to form clubs in Hamilton, Piqua, Wapakoneta, Findlay, Lima and Springfield. All of these towns are connected by electric railways and regular scheduled games during the season would furnish considerable additional traffic.

eight conductors per slot, each coil spanning the first and ninth slots. In Fig. 3 the arrangement of the commutator leads is provided with a socket (11), which is connected to the balancing rings. The leads are made of strips of German silver, and their dimensions are very accurately determined. The motor here shown and illustrated has eight poles and eight brushes, and is designed for a frequency of 2000 line alternations per minute.

The field magnet is in the form of a hollow cylinder, built up in the form of thin plates or laminæ, and held together in their proper relation to the shell by the thin frame 27, which is not intended to be any thing more than a support, and is no part of the magnetic circuit. The slots in the pole pieces are made shallow, being only of sufficient depth to keep down the cross magnetism, and are so dimensioned that the iron frame between them shall be quickly saturated when the current in the field winding exceeds the rated amperage for which the field magnets are designed.

The patent rehearses a number of methods of controlling the motor by well-known alternating-current principles. The claims are very interesting and are rehearsed herewith:

1. A single-phase alternating-current series-wound motor, in which the ratio of the field-magnet self-induction to the armature counter E.M.F. is approximately equal to the ratio of the line alternations to armature alternations, substantially as described.

2. A single-phase alternating-current series-wound motor having a closed-coil parallel-wound armature with relatively high resistance leads connecting the armature coils with the several commutator bars, and a field-magnet the poles of which have slots transverse to the direction of rotation of the armature and with or without a closed conductor inserted in one of the slots and extending through approximately the central portion of the pole, substantially as described.

3. For use with single-phase alternating electric currents, a series-wound motor having the ratio of the number of its field poles to the number of current alternations per minute approximately as 1 to 250, and having a ratio of field ampere-turns to armature ampere-turns approximately as 20 to 27.

4. Electric motors for use with single-phase alternating currents constructed substantially as described with reference to the accompanying drawings.

◆

STATE BUILDS A TROLLEY LINE

Construction work is now nearing completion on an electric railway at Bismarck, N. D., which was financed by the State. It seems that when Bismarck was first settled the pioneers thought that the city would soon grow to be a metropolis, and in the enthusiasm of their expectations for the future they set the capitol upon a high hill, more than a mile from the business section of the town and the various hotels at which legislatures and visitors to the city had to stop. It turned out, however, that the city did not boom as much as the founders of it had anticipated, and the capitol now stands far removed from the center of population, with practically no means of transit. The fierce weather that prevails throughout the Northwest so added to the trials and tribulations of the law-makers in attending sessions, that they decided to lessen their troubles by appropriating State money for the construction of an electric railway to the capitol. In order to do this, part of a parcel of 82,000 acres of land, which was a separate allotment made by the Government for the endowment of each of the State institutions, was sold.

The line begins at the railroad depot, and is 8500 ft. in length. The construction was begun last autumn, and is under the direction of an electrical engineer employed by the State. No contracts were let for building the line, and the actual work of construction is being carried out with labor paid by the State. The road will be operated by the State under a franchise granted to the State authorities by the Common Council of the City, which gives the State the right to operate a street railway for a term of twenty years, with a maximum fare charge of 5 cents.

The purposes to which the road will be put are unique. It will serve as a freight and passenger line. Coal for heating the capitol will be transported over it, and mail, express and other matter will be taken daily to the State House in a trolley car. Then, too, the legislators and representatives of the State will be transported free of charge.

The plant that will supply power to operate the road will also be used to light the administration buildings.

◆

NEW SURFACE CONTACT SYSTEM

The accompanying illustrations show the method of constructing the Bourne Surface Contact System, which is designed not only for street railway service but also for interurban and heavy trunk line traffic.

In street service the system employs two sets of studs; the main operating set, from which current for operating the car is obtained and an energizing set. In interurban or trunk line traffic an overlapping double third rail is used.

The special feature of this system is the solenoid circuit closer, which is the invention of Frank Bourne, E. E., of New York. This is shown in the cross-section, Fig. 1. The movable core, or plunger, is a hollow iron stem filled with a wooden plug, which carries at its base an iron plate, and on its upper end a gun metal contact-plate. This plate is provided with a rocking joint, which automatically adjusts itself to any inequalities of the upper contact-plate, which is connected with the street stud or third rail. In the center of both upper and lower contact-plates are carbon contacts. The upper carbon contact has a free vertical movement of about ¼ in., and is guided by a hollow stud on the top plate. This allows it to act as an automatic secondary break. In ordinary street railway service

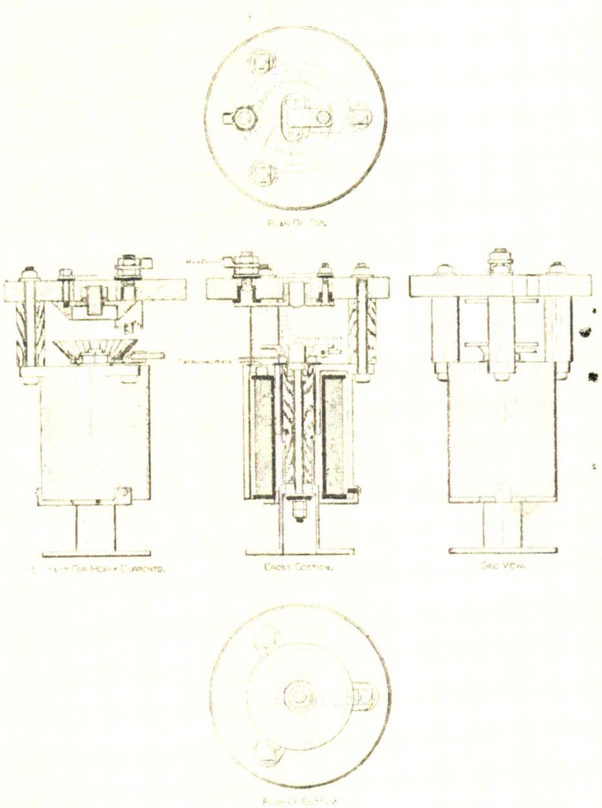
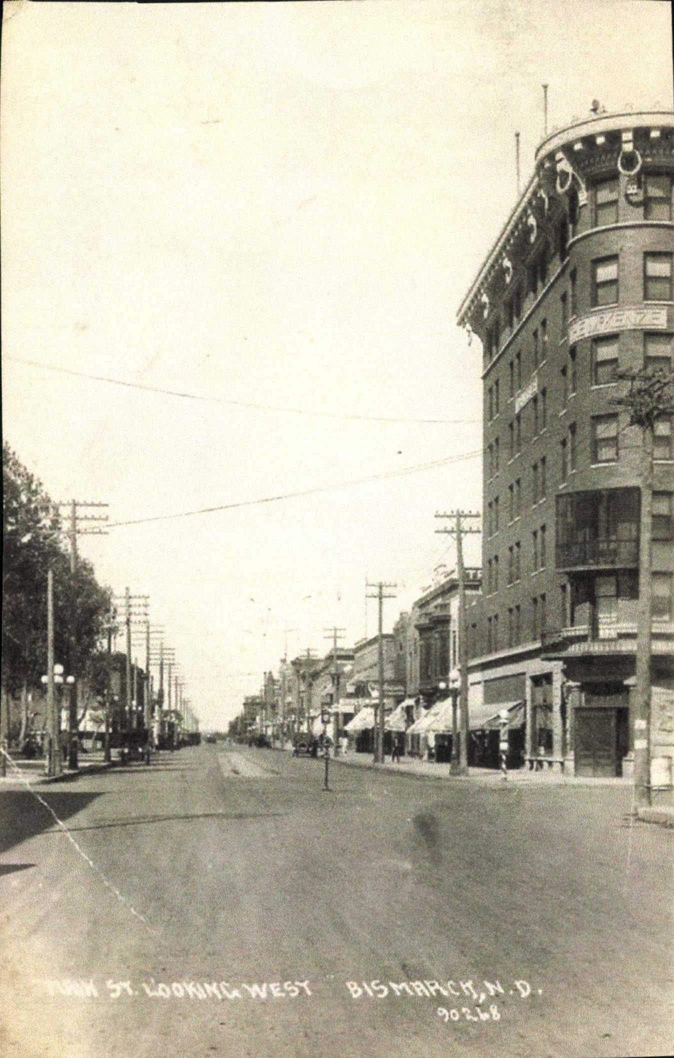


FIG. 1.—SOLENOID CIRCUIT CLOSER FOR SURFACE-CONTACT SYSTEM



MAIN ST. LOOKING WEST BISMARCK, N.D.
90268

carry any pressure on the heating main, as with a vacuum 12 ins. to 18 ins. on the air line, the vacuum on the steam line will be from zero in coldest weather to 5 ins. or 6 ins. in mild weather. This is of great advantage when using exhaust steam. When the exhaust steam is not sufficient for heating, live steam can be furnished through a Davis 3½-in. reducing valve. The exhaust steam from the exhauster is used to heat the engine room of the plant. The returns from the building, as well as from all other sources except the oil separator, flow into a tank under the boiler room floor, and from there are pumped to the boilers.

The engines are both Ideal engines, built by A. L. Ide & Sons, Springfield, Ill. The generators were built by the Commercial Electric Company. The lighting unit consists of a 12-in. x 12-in. engine direct-connected to a 50-kw 125-volt generator, running at 290 r. p. m. The railway unit consists of a 14-in. x 14-in. engine, directly connected to a 100-kw 550-volt generator, running at 275 r. p. m.

Both generators are attached to the engine shafts by flange couplings, this arrangement allowing the removal of the armature for repairs without disturbing the engine. The foundation is made up of one solid block of concrete 24 ft. long, 16 ft. wide and 3 ft. deep.

The switchboard consists of two panels of white marble, one panel for each machine. The recording instruments are of Weston manufacture; the switches are Crouse-Hinds, and the circuit breaker I-T-E.

It is proposed to install a storage battery to take care of night lights for the watchman and for vault lighting for daylight use. The switchboard for this will be installed beside the other board, thus making a three-panel board. Above the switchboard is a gage board, having mounted on it a clock, two gages for the heating system and one for the boiler pressure. On the wall of the engine room is also mounted a recording gage which records the boiler pressure.

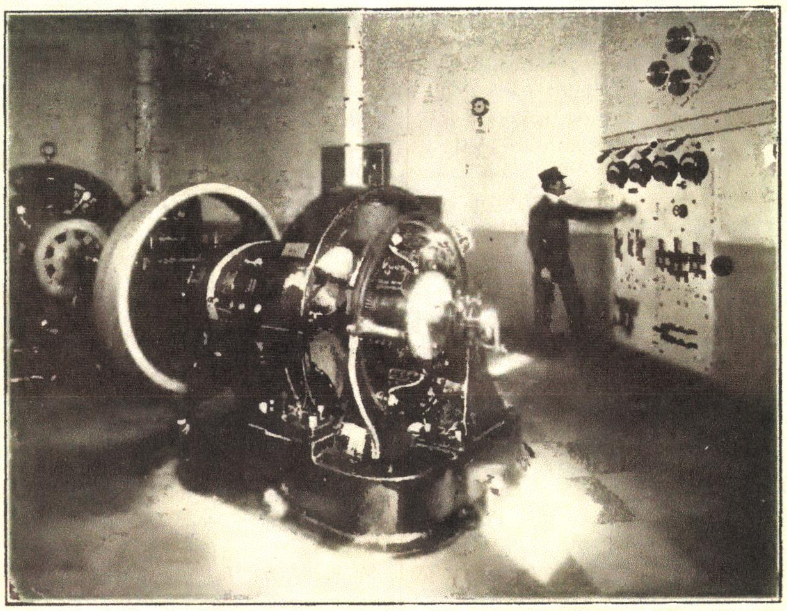


FIG. 3.—GENERATING SETS AND SWITCHBOARD IN POWER STATION

The railway is of standard gage, using 45-lb. T-rails bonded with the General Electric Company's ribbon bond. About two-thirds of the line is through the city and on the city streets, and the other third through what is known as the Capitol Park Addition. Inside the city proper the grade of the road was carried to the established grade of the streets, but on that part of the line running through the Capitol Park Addition, a cut of 4 ft. was made for about 300 ft., a fill varying from 0 ft. to 8 ft. for over 600 ft. long, and another fill varying from 0 ft. to 6 ft. about 400 ft. long.

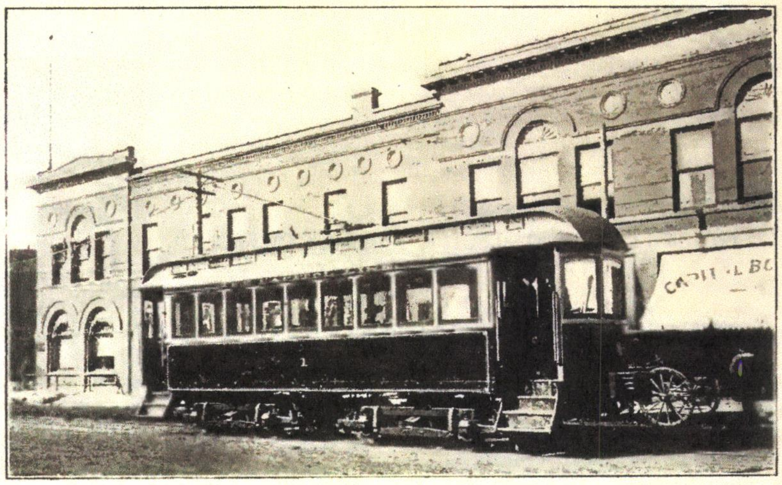


FIG. 4.—CAR USED ON THE CAPITOL LINE

The overhead material was furnished by the General Electric Company. The poles are made of cedar and are 30 ft. long.

Only one car is in use at present. It was built by the American Car Company, of St. Louis, Mo., and described in the STREET RAILWAY JOURNAL of Feb. 27. It is 34 ft. 6 ins. over end sheathing, and has fourteen reversible rattan seats and four stationary ones. The electrical equipment is Westinghouse, and consists of four 12-A 30-hp motors and two controllers. The air brake equipment is of the Christensen type.

The car is equipped with standard Jenny couplers, as it is expected to have two or three special hopper cars built for hauling coal to the power house. The mines from which the coal is secured are about 25 miles from Bismarck. Track connection will be made with the steam road running to the mines, and the special cars sent to be loaded, then switched to the electric line and hauled to the Capitol, where the power house is located.

All the engineering work was done by Mr. Foster. This installation is, perhaps, one of the most complete small plants that can be found in the West, or outside of large isolated plants in the larger cities. No contracts were entered into, except the changing of the piping for the heating plant and the power house, all other apparatus being purchased and installed under the direction of the consulting engineer. From a financial standpoint it cannot be said that the car line is a complete success, but under the existing conditions it cannot be said to be a failure, as during the winter months all the exhaust steam is used for heating, and the difference in efficiency between the new manner of heating and the old will do much toward making up the cost of coal for the summer months. The problem of transporting the members of the Legislature is solved effectively, as it takes but a few minutes to transport the whole body.

bine with nature to make this resort popular. The Los Angelos & Redondo Railway Company is a close corporation, being virtually owned by two people. It has the following named officers: President, L. T. Garney, Los Angeles; vice-president, Percy T. Morgan, San Francisco; secretary-treasurer, purchasing agent and manager, H. B. Ainsworth, Redondo; superintendent, L. J. Perry, Redondo; electrical engineer and general foreman, L. B. Pemberton, Redondo. The construction and improvements noted in the above description have been effected under the personal supervision of the energetic manager, Mr. Ainsworth, who has been ably assisted in the design and construction of the mechanical and electrical features by Mr. Pemberton, the electrical engineer.

◆

THE POWER PLANT AND ELECTRIC RAILWAY OWNED BY THE STATE OF NORTH DAKOTA

The State Capitol Building at Bismarck, North Dakota, is a trifle over 1 mile from the city hotels and depots, and the transportation of the members of the Legislature to and from the Capitol Building has always been accomplished with some difficulty and inconvenience as well as expense to the members, as hacks and other conveyances charged 25 cents for a trip in either direction. This, with a lack of room at the Capitol, led to the renting of many committee rooms down town, which has proved an expensive though convenient arrangement.

During last winter's session a bill was passed authorizing the building of another wing to the Capitol. This permitted plenty of room at the Capitol for committee rooms, but did not solve the transportation problem. Hence a bill was passed later making an appropriation for the building of a trolley line from Bismarck to the Capitol Building.

The heating plant in the present building had been in continuous operation for nineteen years, and was in need of a general overhauling, nor was it large enough to furnish heat for the new wing. The lighting of the building had never been entirely satisfactory, as it was too far from the city plant for good service, the voltage being 220 direct-current, and the distance over 1 mile. The Board of Capitol Commissioners decided to remodel the heating plant and build a lighting plant in connection with the power plant for the electric railway. It appointed Charles Foster to prepare suitable plans and specifications for the remodeling of the heating plant, for the installing of the lighting and power plant for the Capitol Building and the railway, and to superintend the construction of the entire installation.

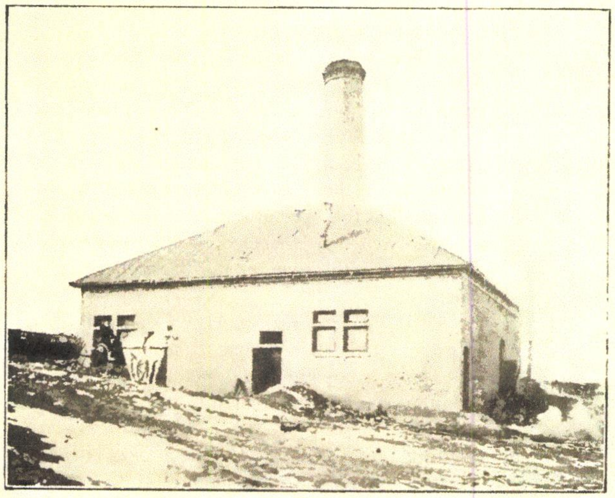


FIG. 1.—EXTERIOR OF POWER STATION

The power house, which is shown in Fig. 1, is 53 ft. 4 ins. x 56 ft. 4 ins., and is built of brick, with cut stone trimmings and Bodine fireproof roofing. The smokestack is of brick, has an internal diameter of 4 ft, and is 60 ft. high above foundation. The core is built separate from the outer shell and extends to within 4 ft. of the top. A suitable air space is carried up from the foundation to the top of the stack, and at no point do the core and outer shell touch. The building is finished very plainly on the inside. The walls in the engine room and storeroom are painted with asbestine cold water paint. The two rooms mentioned have a steel ceiling. All floors are of cement tile, except the coal room, which is 3-in. plank. All transom windows have suitable lifts, so that the building is easily ventilated.

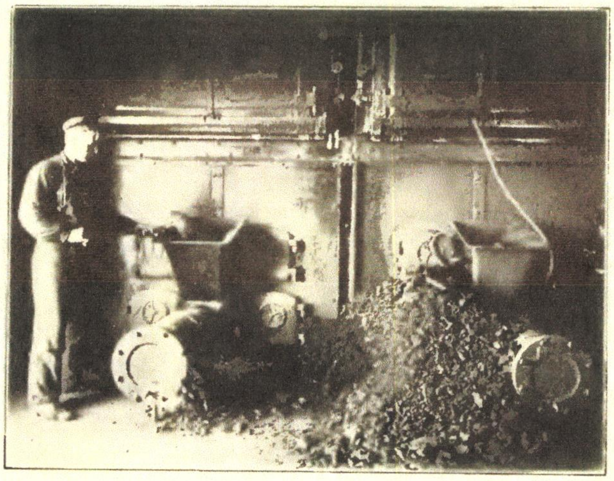
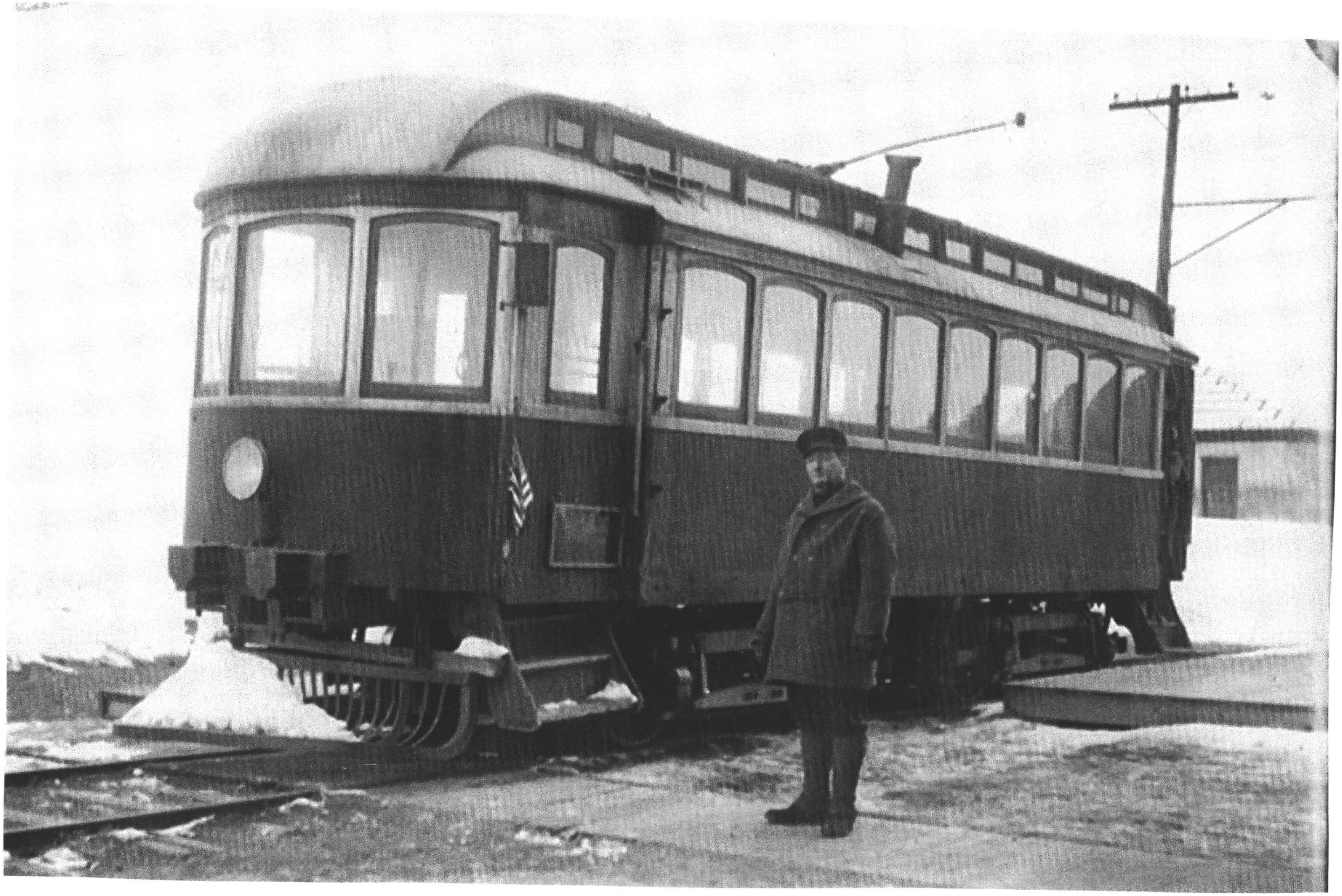


FIG. 2.—FIRING FURNACES IN POWER STATION.

The boiler room is on the east side of the building, and contains the boilers, blower, pumps, heater, return tank and all auxiliary apparatus, such as traps and oil separator. The boiler plant consists of two Heine boilers, rated at 150 hp each, and built for 160 lbs. working pressure. As shown in Fig. 2, these boilers are equipped with Jones' stokers, automatically controlled by the Cole automatic controller. Air is supplied by a Sturtevant 54-in. fan, directly connected to a double 4-in. x 3-in. Sturtevant engine. The controller is belted to the fan shaft, and the engine is regulated by a Foster fan engine regulator. This arrangement is found to work very satisfactorily with but little variation in the steam pressure, as the air and coal are delivered in the right proportions for complete combustion. The coal used is North Dakota lignite screenings. It will evaporate about 4 lbs. of water per 1 lb. of coal, and burns very freely leaving some clinker.

There are two 6-in. x 4-in. Blake duplex boiler feeders and one 1½-in. Penberthy injector, both of which can be used to feed the boilers and the pumps. These feeders are so piped that either may be used to pump into either boiler, that is, both may be in use, one pumping into one boiler, and the other pumping into the other boiler; one may be pumping hot water and the other pumping cold water, but by manipulating the valves, the pumps may be reversed, and the first feeder be made to pump into the second boiler, and vice versa. A hose valve is connected to the pump discharge, and a 100-ft. hose reel attached to the wall in a convenient place, so that in case of fire in the plant, direct pressure can be had almost instantly.

The heating plant in the Capitol was partly a one-pipe system and partly a two-pipe system, but has been remodeled to a certain extent and the Paul vacuum system installed. The exhaust steam from all engines, pumps, etc., passes through a Triumph oil separator, which removes the oil and then passes into the heating system. It has not been found necessary to



DEVIL’S LAKE & CHAUTAUQUA TRANSFER COMPANY
NORTHWESTERN TRACTION CO

Devils Lake, Chautauqua, and Brazil ND

Devil's Lake & Chautauqua Transfer Company
Northwestern Traction Co.

Minn. Streetcar Museum Inc. in October 2008 acquired an undated postcard captioned "Chautauqua Grounds, Devil's Lake, N.D." The view from a wooded area looks out on Devil's Lake as a steam "motor" passes by pulling two open-platform passenger cars. According to the Steam Powered Rail Atlas this was the Brazil, Devil's Lake & Minneapolis Electric Railway which ran about 4 to 5 miles from Devil's Lake to the Chautauqua Grounds. A Devil's Lake history website calls it the Chautauqua Air Line. See 1914 County Map attached.

On September 17, 1906, Twin City Rapid Transit Co. sold the following equipment to the Devil's Lake & Chautauqua Transfer Company.

#595 Single-Truck Closed Motor Car, built by Jones' Sons Car Co. in 1888; front vestibule added and body lengthened by TCRT Co. in 1892.

#1602 and #1607 Single-Truck Open Motor Cars, built by LaClede Car Co. in 1893.

Electric Railway Journal issue of January 4, 1919: Table III Electric Railway Abandonments in 1918 included:

Northwestern Traction Co., Brazil, North Dakota 5.00 miles.

Electric Railway Journal November 11, 1911: The Stotlar Investment Co., Devils Lake, has purchased the property of the DL&CT Co. which operates a five mile railroad between Devils Lake, North Dakota Chautauqua Grounds and State Military Grounds. Proposed to electrify in 1912.

Electric Railway Journal January 4, 1913: Brazil, Devils Lake & Minneapolis Electric Railway incorporated in North Dakota. Had purchased the Devils Lake & Chautauqua line. Planned to build east to Minneapolis and west to Williston N.D. Will operate gas-electric cars.

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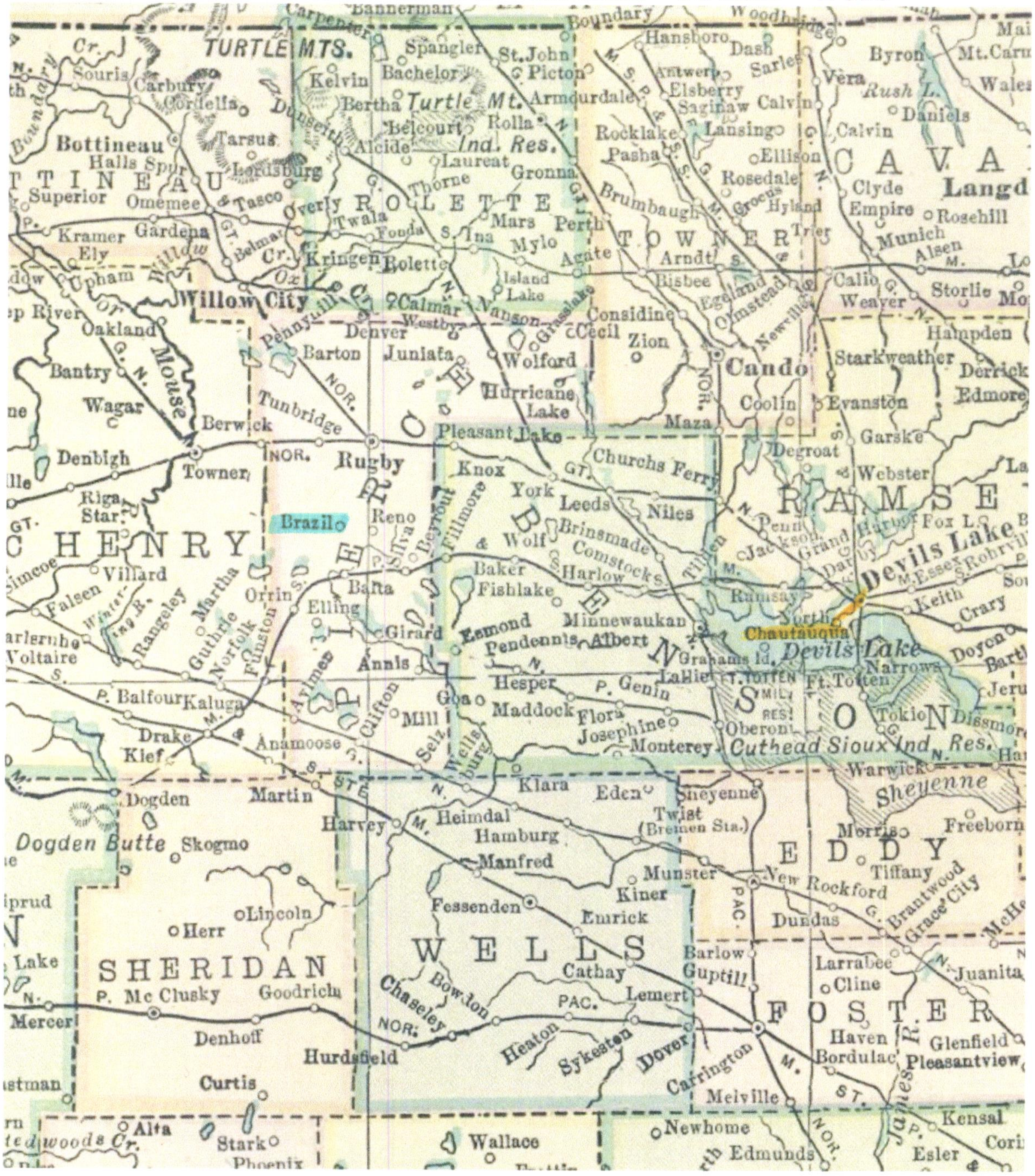
1914 County Map

Benson - Pierce - Rolette - Sheridan - Towner - Wells



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